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The Wisconsin Medical Journal

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A Monthly Journal of Medicine and Surgery

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VOLUME XV.

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ORIGINAL ARTICLES

SOME PRE-CANCER CONDITIONS.*

INHERITABLE, CONSTITUTIONAL AND LOCAL.

BY WILLIAM E. GROUND, M. D.,

SUPERIOR.

The scope of this paper is general rather than specific, suggestive rather than argumentative and to remind rather than to teach.

I have neither the time, inclination nor the qualification to discuss the fine theories regarding the cause of cancer, nor its intimate pathology. My aim is to stimulate an increased interest in cancer among the rank and file of the profession, to the end that the menace of this terrible disease may be mitigated.

To my mind the cancer problem is the most important problem that the medical profession has to deal with today. The situation is not unlike that concerning tuberculosis a decade or so ago. We all know what a popular educational propaganda has done for the consumptive, and to a lesser extent for other forms of tuberculosis. The same thing can and should be done in the case of cancer. Cancer is even more curable than tubercle. In fact cancer is one of the most curable of diseases, instead of the most incurable as is generally supposed. Being in its incipiency a purely local disease, without constitutional taint, makes it amenable to eradication. The primary location of cancer is more accessible as a rule than tuberculosis and hence more available for treatment.

For efficient treatment the same problem presents itself, namely, early diagnosis. The cases of cancer that come to the surgeon now are advanced cases and therefore inoperable and incurable. The point is to recognize cancer early, if possible before it is cancer. The latter seemingly impossible can be done many times by the recognition of pre-cancer conditions.

The whole literature of cancer is in such a disheveled state, that the great advances that have been made are lost to the view of the busy practitioner. The only way to diminish the dreadful mortality from this disease is to turn on the light. This light must be turned on the people through the medical profession. The medical profession is slow to realize its great power for helpfulness in the matter. It must be remembered that until quite recently, about all the medical education the people got was through the medium of the quack doctor and the patent medicine faker, and it is no use for me to take up time telling what kind it was.

Realizing the great urgency of the public for reliable and authoritative information upon this subject, many state and national medical societies attempted to supply the deficiency. With so many organizations, concerted action was hard to attain.

This exigency was met by the formation of the American Society for the Control of Cancer, with central offices in New York. Of this organization Mr. Lakeman, the Executive Secretary, says: The American Society for the Control of Cancer, sets up no claim of priority or originality in preaching to the public the necessity of early recognition and treatment of this disease. The organization was effected under the inspiration of numerous similar movements in this country and in Europe. From the first it has been inspired only by a sincere ambition to coordinate all existing forces into a single irresistible nation-wide effort to reduce the cancer death rate by imparting the necessary knowledge and inspiring the will to believe and act upon it.

But the foundation of this society does not absolve us of our duty in the matter. In fact the movement must be impotent for good unless we all unite in putting the ban on ignorance and stupidity with regard to cancer prevention and cancer curability.

It is stated upon the most reliable authority, that cancer destroys approximately 75,000 people

*Read at the annual meeting, State Medical Society of Wisconsin, Oct. 6-8, 1915.

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every year in this country, and that the rate is rapidly increasing. I will not stop to argue nor quote reasons, but the condition exists and the proof is at hand and available for those who wish to investigate.

The fact that after 40 years of age, cancer is one of the most if not the most frequent causes of death. One woman in every 8 and one man in every 11 after that age is doomed to die of cancer, unless the invasion at the present rate is checked. At the age when most people are at their prime and necessary to their families, and their occupations.

Cancer is a disease of great antiquity, and its ultimate cause is yet wrapped in obscurity. Still enough is known of its nature to enable us to improve our cures very materially.

We cured malaria before the discovery of the plasmodium, and syphilis was successfully treated long, long before Schaudinn discovered the *spirochete pallida* (*Treponema pallidum*) in 1905, and how much material aid in the treatment of tuberculosis was rendered by Koch's discovery of the bacillus tuberculosis, is a question. I hasten to assure you that I do not depreciate the value of these discoveries. Far, very far from it. These studies take us out of the abyss of empyricism and put us on a foundation of fact, of truth and of science.

I only mention these instances to show that we have no cause for lamenting the lack of therapeutic resources for the cure and prevention of cancer; that there is no excuse for standing idly by and watching 90% of cancer cases die, simply because we do not exactly know the prime etiological factor involved in the cancer process. With surgery, the cautery, and radio-active substances at our command, we should cure 80% of our cancer cases, instead of 10% as in the past. Use the information we now have and use it early, and our pessimism will fade and a healthy optimism will redound to our credit and to the welfare of those who put their lives in our keeping.

Malignant disease and the tendency to neoplastic formations, is of very wide distribution. Almost the entire animal and vegetable kingdom make ample contributions to neoplastic disease. Those who know best assert that malignant growths are rarely met with among the savage and uncivilized peoples. These reports come from medical officers, missionaries, and others working among such people. Cancer is most prevalent in highly civilized countries, and in countries it is more frequently met with among the highly nourished and well-to-do. Unlike the great white plague, tuberculosis, the great red plague, cancer, occurs with greater frequency in the over-fed or badly fed, and individuals in middle or later life. Tuberculosis attacks the under-fed and poorly nourished in early life. In this connection, I may be permitted to express my belief, that no people can be, I am not prepared to say adequately nourished, but certainly they cannot be over-nourished without considerable meat in their dietary. In this light a high meat or protein diet, continued throughout the greater part of life might be said to be conducive to cancer.

A tumor may develop in any multicellular organism, and where tumors exist, there will also be found cancer. These neoplasms become more common the farther we get from nature. That is, where animal life is left to follow its natural inclinations and adapt itself to environmental influences in a very gradual and easy manner, tumor growths are rare. Hurried adaptation to unaccustomed influences are fraught with danger to somatic development.

That civilization in the usual acceptation of the term, is a very actual factor in tumor formation, is very evident in even a casual study. With the blessings of civilization and culture, comes artificial and unnatural stimuli, followed by malalignment of function and ultimately radical changes in structure, owing to anomalous and exaggerated cell growth.

You have probably already remarked that I have made wide and free use of the terms tumor, neoplasm, cancer and malignant diseases. Now this is not unintentional on my part. The fact is one can nowhere find marks of true distinction. True, as compared with the extremes of each type, there is much contrast, but the nearer we come to the ultimate, to the initial, the more mystifying the distinction becomes. So that it is impossible to say where the innocent ends and the malignant commences. A tumor is nearer cancer than normal tissue. In fact all tumors are potential cancers. Tumors are often divided into two general classes, innocent and malignant. Careful study of the subject, carries the conviction that no such line of demarkation exists. The most innocent lesion, be it scar, ulcer or neoplasm, if properly constituted, may with the requisite influences as to irritation,

constitutional status, etc., become a most malignant and vicious affair.

A few illustrations will suffice. Not so very long ago, our learned and venerable Keen, read a paper before the A. M. A., calling attention to the fact that, what we thought innocent moles, warts and nevi, were often the procursors of the most vicious types of malignancy. So startling and convincing was this news, that many prominent medical men who heard the paper, rushed home and proceeded to have their pre-cancer moles and nevi removed. When we all got to thinking about it and culling our experience, we knew it was the truth that these plebean lesions would develop into cancer in later life even though they had been carried around in a nonchalant manner since childhood, particularly if subjected to a prolonged irritation of a mild but constant type. Sudden, powerful traumatism rarely leads to malignancy.

Fibroid tumors of the uterus, usually classed as benign, often develop into sarcomata. Some say the germ of malignancy was there from the start. Others contend that the lowly organized elements of the growth loses restraint and assumes the malignant phase.

The well known contributions of the Mayo Clinic regarding the transformation of chronic gastric ulcers into carcinomata is a further case in point.

As before intimated no attempt will be made to disclose the identity of the sensitizing factor in cancer production.

Whether parasitic, microbic, metabolic or chemical, there are a few fundamentals back of all this that I wish to consider.

First as regards constitutional peculiarities, whether inherited or acquired, that tends to diminish the inherent immunity to cancer formation.

It has long been suspected that cancer was in some way inheritable; that it ran in families. This was accounted for by supposing either direct transmission or constitutional cancer taint; peculiarly favorable inclusions of isolated embryonic rests with little capacity for specialization or development, or direct infection by close contact.

There is much to substantiate the belief that there is a greater tendency to cancer in certain stock than in others, and that there is a constitutional condition favorable or necessary to permit a response to irritation, parasites or infection, before they can become effective as cancer producers.

The other phase is the added impetus given this tendency by methods of living in after life.

Experimental investigation which has done so much for medical science, has stepped in here and produced supplementary evidence of the inheritability of tumor formation and cancer.

Under this head one of the latest and most important contributions has been made by Miss Maud Slye, of the University of Chicago. For several years Miss Slye has been patiently working the proof that cancer runs in families. Not that cancer is directly inheritable as such, but that the tendency to produce neoplasms under the right stimulus is surely transmitted from generation to generation. Non-cancer bearing strains can be had without the appearance of cancer, and cancer bearing strains can be had with the constant production of cancer subjects. In these experiments on mice she bred the neoplasm strain in and out of families at will. Mice multiply abundantly, and run through the stages of youth, maturity and old age in very few years. Miss Slye had one mouse cancer family under observation for 25 generations.

These tendencies were demonstrated to obey Mendel's law as surely as albinism. This law may be briefly defined thus:

When two varieties differing from each other in one characteristic are crossed, the hybrids preserve for the most part the peculiarity of one or the other parent, and do not exhibit a blend of the two. The characteristic which persists in the hybrid is called the dominant; that which tends to disappear, the recessive. When these hybrids interbreed, the recessive appears in one-fourth, and the dominant in three-fourths of the descendants.

From this law we reason that an individual may be potentially cancerous, but may not produce cancer unless mated with another individual with the same taint. The practical application of this would be to discourage the mating of individuals in both of whose families there was a history of neoplasm or cancer.

Cancer structures in mice are believed to be like those in man and behave very much alike, and the locations of the body are similar.

Another point in Miss Slye's investigations corroborative of previous observation, notably of Erlich and Apolant, that much experimental cancer, primarily at least is first sarcomatous, and later carcinomatous, as the more highly differentiated tissue is attacked. In its construction, car-

cinoma must have a connective tissue base. Viewed in this light it is not hard to conceive of carcinomas reverting to a sarcomatous type, as is sometimes observed.

She further corroborates previous observation relative to the fact that robust physical condition is almost essential to a successful cancer strain. The cancerous mice were among the largest and strongest and the most vigorously reproductive. When, however, reproduction is excessive, and weakness is produced, cancer ceases to develop. Decrease of nutrition lowers the death age by increasing infections, lowers the rate of reproduction and lowers the cancer rate in that family, but increases the tendency toward infections.

The conclusions are: That an individual with poor normal growth has slow tumor growth, and obversely the individual of good growth power, whose normal processes are not being depleted reproductively or otherwise, shows rapid growth of neoplasms. Infections take the weak and cancer takes the strong. Diminution of food and nutrition increases infectibility and lowers the cancer rate. Vigorous physical growth and nutrition increases the cancer rate but lowers the infection rate. Cancer follows the laws of heredity and can be bred into and out of a strain at will.

Cancer occurs only in cancer strains, infection occurs in any strain. Infections spread from one cage to another, while cancer does not spread in a cage or from one cage to another by contact. Mice may become infected from eating infected dead mice, but do not become cancerous from eating cancerous mice. Control mice fed on cancer material do not contract cancer.

Moreschi found that rat sarcoma grew less readily and more slowly, when the animals were put on a low diet and were losing flesh. Peyton Rous of the Rockefeller Institute, took up Moreschi's work and developed it. He says, "previous work has shown that the growth of grafts of transplantable tumors can be in many cases prevented or retarded by underfeeding the new host or putting it on a special diet. The effects of such treatment on large tumors has been little studied; and the effects on metastases and recurrences have not been studied at all." Experiments with transplanted rat and mouse tumors along the lines suggested, show that large growths of certain strains are checked in their development by underfeeding the host upon a special diet (Sweet's modification of one of Mendel and Osborne's foods) or in some cases by simple under-feeding. Two metastasized mouse cancers are referred to as instances in point.

Erlich has been quoted as saying that mice living upon a rice diet cannot be inoculated with cancer, while mice living on a meat diet can be readily inoculated, and that the cancerous tumors develop quickly and continue to grow until the animal dies. He also found that when mice with cancerous tumors, the result of inoculation, were placed upon a rice diet, the tumors ceased to grow, and in many cases degenerated and disappeared. Sweet, Corson, White and Saxon have obtained similar results.

It must in fairness be said, that these results were obtained with experimental tumors only. While spontaneous tumors of large size and thoroughly established, could not be markedly influenced by a low diet, the stimulating effect of forced feeding with a meat diet was noticeable.

In addition to this valuable experimental work, there is available clinical evidence in the hands of men of wide experience and mature judgment, to the effect that the nutritional state is a most important factor in the development of the neoplasm-cancer process.

Given a neoplasm tendency inborn in the individual, certain nutritional requirements are necessary to grow cancer to the best advantage. The subject must have maintained good nutrition throughout life, a hearty eater, especially of meat and articles high in protein, with the consumption of tea, coffee, alcohol and tobacco, in liberal amounts, condiments and highly seasoned food. Supplement this with a chronic irritation of a scar, ulcer or neoplasm, and the chances for the development of a malignant disease are the very best.

Bulkley in his recent book on Cancer, Its Cause and Treatment, has pointed out these facts most emphatically. I have followed up the reviews and comments upon this book quite closely, and while some seem inclined to cast reflections upon the sanity of Bulkley's conclusions, still none disputes his ample experience and scholarly attainments. Personally I think there is more than a grain of truth in his teaching. While I would not have the courage to substitute his dietary teaching for surgery, I am inclined to favor it as a part of the after-care in properly selected cases.

It is a matter of common knowledge that an

ample supply of good rich blood is essential to proper repair and cell growth under regulating influences, and that neoplasms and malignant growths are attempts at repair and cell growth run riot and without restraint.

Dawbarn many years ago conceived the idea of tying off or otherwise inhibiting the growth of cancer by diminishing the blood supply.

Coming now to the more specific phase of the subject, we will consider briefly some of the more common lesions that are either the forerunners of cancer or are likely to become cancerous.

As Bloodgood said, cancer never arises from healthy tissue, and this is the whole crux of the matter of cancer prevention in my estimation.

Cancer does not spring fullfledged into being, but leads up to full development by easily ascertained steps. It is for us to know the route taken, that we may intercept the disease before it has done material damage to the host.

Fortunately the large majority of these lesions are perfectly accessible and therefore available for early study and treatment, and not hidden away in the innermost recesses of the body, where the human senses rarely penetrate.

The prevailing sites of cancer growth are in those locations most subject to local irritation, inflammation and microbic invasion. For example, the lip, the mouth and tongue, the breast, the uterus, the stomach and ileo-cecal region, and the rectum, the prostate, and the skin.

To make this point all the more striking I will quote a few unfamiliar examples. Epithelioma of the abdominal wall is very rare with us, yet in Kishmir it is very frequent. During cold weather the natives carry a basket containing burning charcoal under the clothing for purposes of warmth. These often cause abrasion of the lower part of the abdomen and thighs, and as a result of this chronic irritation, a squamous-celled epithelioma develops.

American and European women rarely have cancer of the mouth but in Ceylon and India generally and in the Phillipines, the women are frequently found suffering from carcinoma in this locality, due to the chewing of betel nut and buyo leaves and sleeping with a plug in the mouth. Other chronic irritations, not only physical but chemical and actinic, predispose to cancer. Among these may be mentioned cancer of the groin and scrotum in chimney sweeps, of the groin in sailors, shinbone cancer in locomotive engineers from years of exposure to direct heat, repeated exposure to the irritating effects of paraffin, petroleum, arsenic, analine, etc. The wellknown possibility of the development of malignant conditions in X-ray burns is another instance in point. Instances in animals correspond to the brand cancer in cattle, and the horn core, a squamous-celled carcinoma, developing at the root of the right horn to which a wagon is attached, as met with in India.

First in order of accessibility is the skin. About 7% of all cancers in men and 2% in women are of the skin. Late statistics show that the mortality from skin cancer has diminished, and is the only region of the body where such is the case. In fact, other organs show a decided increase. Presumably this is due to closer attention paid to pre-cancer and early cancerous lesions.

According to Isador Dyer, the locations where cancer of the skin is most likely to develop are on the lips, nose, ears, eyelids, cheeks, neck and on the backs of the hands. Skin cancer may occur in other locations, but these are most frequently affected. The same author also remarks that the kind of things on the skin which must be observed for cancer are not as many as they are important.

"All moles or warts which grow in size; all moles which change their color and grow dark brown or black; all small scaling spots which grow thicker and scab or bleed easily; all scaling warts, especially on the lips, the ears, the eyelids, the cheeks or the hands. Cancer may occur in faulty glands of the skin, both sweat and fat glands. When this occurs the glands change their usual function and scale instead of forming fat or sweat. This makes them break down and so become the focus for cancer. They do so quicker and more surely if irritated or picked with the fingers." Dyer lays special stress upon dandruff as a cause of skin cancer. Falling as it does from the scalp and lighting on the ears, eyelids, nose, neck, lips and face, if there is already a scaling spot, or thickened or unhealthy scar, wart, mole or gland ready to receive the dandruff scale, it sets this spot alive with activity and it goes on to form skin cancer.

Other lesions that must be considered pre-cancerous in the list of chronic inflammations and irritations are, eczematous dermatitis, xeroderma, Paget's disease, lupus and chronic ulcers.

Cancer of the mouth, including the lips and

tongue, is very frequent, especially in men. To account for the discrepancy many exciting factors are called into requisition, as for example, tobacco in general and the pipe and cigarette in particular, jagged teeth and syphilis. In a recent paper on cancer of the mouth, Robert Abbe remarks that the tongue showed cancer, or a pre-cancerous condition, in 36; inside of cheek, 15; gum, 21; lip, 14; throat, 14; total, 100. There were 90 men and 10 women. Of the 90 men all were heavy smokers except one, who had a cancer of the lip in a scar from an old baseball injury. Almost every man had been an inveterate smoker of from 3 to 20 cigars a day. One denied cigars but acknowledged one or two packages of cigarettes daily; he had cancer of the tongue.

These factors cause cancer by preventing the normal healing of sores, ulcers and abrasions. As before mentioned in those countries where women chew tobacco, betel nut or buyo leaves, cancer of the cheeks and tongue are relatively frequent.

Persons who present long standing marks of past syphilitic lesions of the tongue, leukoplakia or warty growths, are particularly liable to cancer. The primary relation is probably not a cellular metamorphosis, but a loss of surface which allows of an ingression. The disease frequently commences in a fissure or abrasion, with gradually extending infiltration, or may follow upon a simple papilloma or a purely syphilitic granuloma. The subject of cancer of the tongue is too extensive to allow details here, but there are two or three points I want to emphasize.

First, cancer of the tongue grows rapidly, owing to the fact that there is little fibrous tissue in this organ to oppose progress, and the glands soon become involved. For this reason no suspicious lesion should be disregarded. In many other organs growth is comparatively slow, a matter of weeks or months perhaps, but in the tongue it is a matter of days. If the question lies between a syphilitic ulceration and cancer, act quickly. A Wassermann followed by salvarsan if the Wassermann is positive. Don't wait the results of slow specific treatment here. Another pitfall: frequently both lesions are associated, in fact many believe that syphilis in the mouth is essentially a pre-cancerous lesion. In such case a marked benefit would be derived from antisyphilitic treatment. Don't be deluded into the notion that a cure is assured, but watch and see.

BIFURCATION OF THE TRANSVERSE PROCESS OF THE FIFTH LUMBAR VERTEBRA, WITH REPORT OF A CASE.*

BY WILSON CUNNINGHAM, M. D., F. A. C. S.,

PLATTEVILLE.

Bifurcation of the transverse process of the fifth lumbar vertebra is an abnormal condition. Like many abnormalities of the spinal column, but few are more than anatomical curiosities, having little if any clinical significance. When the condition exists and there is pain, either from bursitis, abnormal tension or pressure upon nerves or nerve trunks, or distortion of the spinal column with resultant pressure symptoms, the abnormality then may be of definite significance and clinically become of a serious nature.

When we consider that there are normally thirty-three vertebra[1] in the human spinal column, and that this number may vary one more or one less, and that no two are exactly alike; and that there are five distinct groups making up the number; and that this number is sometimes increased by an additional vertebra in one group with or without a corresponding deficiency in another group; or that there may be a deficiency in one group, with or without an increased number in one or another of the other groups, there is but little wonder that we have variations in the characteristics of the vertebra or their accessories. Especially may this be true of the vertebra making the transition from one group to that of another group.

Hertwig[2] states that these particular groups of vertebra, cervical, dorsal, lumbar, sacral and coccygeal, are produced through inequalities in the development of the separate vertebral and costal fundiments, and through fusions here and there. With any variation from the usual development of these vertebral and costal fundiments, or from the usual fusions, we have various resultant abnormalities. An example of this is the rudimentary cervical ribs found occasionally on the last cervical vertebra. This also shows that the characteristics of one group may not always be definitely marked at a particular vertebra, but instead, may take on some of the characteristics peculiar to the vertebrae of the next group. In the dorso-lumbar vertebrae,

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we may find variations in both the number and characteristics. Davis[3] says the variation in number of vertebrae in both the dorsal and lumbar groups varies much more frequently than is usually supposed. He states that the occurrence of thirteen instead of twelve ribs on a side is not uncommon and he has also seen skeletons with only eleven.

In the lumbar region variation in number is not rare and in anatomical characteristics, rather frequent. In Goldthwait's[5] classification of the Congenital Visceroptotic or Carnivorous type of human beings, he states the lumbar vertebrae are more like the so-called normal dorsal vertebrae in shape, the body being of about the same width laterally as it is in depth antero-posteriorly and frequently six lumbar vertebrae are present with the full number of sacral vertebrae.

The fifth lumbar vertebra normally has marked characteristics of its own. The body is much thicker anteriorly than posteriorly; the lateral diameter is considerably greater than the antero-posterior; the articular processes are strong and large and almost always of the crescentic type. The transverse processes are markedly greater in size than those of the other lumbar vertebrae. This is especially true of the human beings which Goldthwait classifies as Herbivorous. As he states, the long and broad transverse processes upon the lumbar spine being similar to that which is found in the herbivorous animals and which produces the lateral rounding of the back seen in all the hoof-footed creatures. One or both processes of the fifth lumbar vertebra frequently forms an articulation with the top of the sacrum, as is the condition in my case. This articulation is designated by Goldthwait as the lumbo-sacral-transverse-articulation, or when it articulates with ilium also, it is sometimes designated as sacro-iliasation of the transverse process of the fifth lumbar vertebra. In this respect the vertebra is taking on characteristics of the sacral vertebrae.

In the sacrum, the first three especially, are characterized, as Hertwig says, by very broad, well developed lateral processes. The term *lateral* being used by him selectively because comparative anatomical grounds and embryological evidence both indicate that there are included in them rudimentary sacral ribs, such as in lower vertebrates make their appearance as independent structures. From the embryological side the centers of ossification also favor this view and is comparable with the centers of ossification of a rib.

In the radiograph of my case the left transverse process of the fifth lumbar vertebra is abnormal in that it is longer, broader, and that it appears to bifurcate. In the over development of this process this vertebra appears to be taking on characteristics of the sacral vertebrae. This abnormal process, as the alae of the sacrum, are both undoubtedly derivatives of the costal element. Henderson[4] says, in reporting the cases of the Mayo clinic, this widened process imitates the ala of the sacral vertebra.

In a study of the symptomatology of these cases it is hard to account for the different symptoms, or lack of symptoms, in the different cases. Henderson[5] reports seventeen cases in the Mayo Clinic. Fourteen of these were discovered accidentally in radiographing for other conditions. In three of the cases only, were there symptoms which could be attributed to the abnormality of the vertebra. In this series, three were males, aged from 18 to 35 years, and fourteen were females aged from 9 to 45 years. In four cases the condition occurred on both sides, seven on the right and six on the left. One case only was operated upon; relief was but temporary.

Case—R. F. C., male, married, age 33 years. Occupation, a general contractor. Family history negative. Patient came for consultation, referred by Dr. Brady, complaining of severe pain for the last two months, in the sacro-iliac region, which radiated down the posterior right thigh and leg, following the course of the sciatic nerve. The pain began suddenly while stooping and at times was excruciating. He was unable to sleep. The perspiration, caused by the pain, he called "night sweats, and with the loss of thirty pounds during the last six weeks, he very much feared tuberculosis. The pain was made worse by walking up stairs or by flexion of the thigh with the leg extended, or by deep pressure over the sacro-iliac region, or by flexion of the body to the right.

The radiographs showed an elongated, enlarged, bifurcated transverse process of the fifth lumbar vertebra on the left side. This process seemed to articulate with the ala of the sacrum on this side and to tilt the fourth lumbar vertebra to the right.

He had been taking treatment for sciatic rheumatism, including sanitarium treatment, the only relief obtained, however, was by the use of repeated

doses of morphine. Operation was advised and the following day I endeavored to remove this entire enlarged transverse process. At the time of the operation I injected the right sciatic nerve with urea hydrochloride with an endeavor to relieve the immediate pain symptoms.

At the end of one week he was given, twice daily, extension of the body, by traction upon the legs, with marked flexion, extension and lateral motions of the body. This was done with the hope of correcting the mal-position of the fourth lumbar vertebra. At the end of two weeks he was allowed to get about with the aid of crutches. The use of crutches and body gymnastics was continued for three months, when all symptoms had disappeared. Since that time he has felt perfectly well and attended to the affairs of his business.

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DISCUSSION.

Dr. Philip F. Rogers, Milwaukee: I have no discussion to offer of the paper. This is a rare condition, and one which I have never met in my experience nor observed in the literature.

I would like to ask Dr. Cunningham one question, and that is, how he explains the pain in the right side, when the abnormality is on the left side?

Dr. C. R. Bardeen, Madison: Mr. President and Gentlemen: I shall not enter into any lengthy discussion of this interesting paper of Dr. Cunningham. I think that he has pointed out sufficiently clearly the importance of using the X-ray in cases that might be diagnosed as rheumatism, or various troubles, where it is possible that the pain might be referred to some deformities in the spinal column. The osteopaths and chiropractors ascribe all evils to various subluxations of the vertebrae, and while they go too far, it may be that some of the profession have not gone far enough in examining the spine in various cases where there is some logical reason for thinking that the spine might be involved.

I desire to call to the attention of the members of the Society a few features in the development of the vertebrae which should be kept in mind in considering or examining the X-ray plate.

Each vertebrae develops from a double center for the body, a center on each side for the arch, and except in case of the thoracic vertebrae, a costal center on each side. The costal processes of the ordinary lumbar vertebrae become fused to the transverse processes of the arch. In case of the sacral vertebrae, the costal elements are fused together in front to form the main support of the hip bone on each side.

During development, abnormalities may appear in the bodies, the arch, the costal process or in all three regions. The double center from which the bodies develop may be developed only on one side, giving rise to a half body. I saw a case of that the other day in an X-ray picture of a child, in which one of the lumbar vertebrae had a body developed only on one side, forming marked curvature in this region. The arches which begin their development on each side may fail to completely enclose the spinal canal. You notice, for instance, in the specimen which I have here, that the two arches of the first sacral vertebrae fail to meet behind.

The costal processes of the last lumbar vertebrae may take on sacral characteristics on one or both sides or those of the first sacral may similarly take on lumbar characteristics. The radiograph of Dr. Cunningham and the specimen which I have here illustrate abnormal development of this kind.

Dr. Wilson Cunningham, Platteville (Closing): I have nothing more to say excepting that with reference to the question of pain being on the right side, the body was tilted to the left, and the man stood in about the position I am in at the present time. The flexion of the body would indicate that the pressure upon the nerve trunks that go to make up the sciatic nerve produced the pain.

Blood-pressure readings furnish us with important and valuable data, but they must be interpreted in relation to other physical signs. Such observations alone do not furnish us with a basis for treatment any more than they, unaided, permit us to make a diagnosis. In this respect sphygmomanometer is like a thermometer—its readings must be construed in the light of other findings. We have seen cases exhibiting a practically normal systolic and diastolic pressure associated with dyspnea, cyanosis, and edema, showing that the blood-flow was not normal.

Observations of the systolic pressure alone are of relatively little value. They indicate, it is true, the strain to which the arteries are subjected, but the *diastolic pressure*, the variations of which correspond more or less closely to those of the mean pressure, is the real indication of the work the heart has to do. Systolic pressure may suddenly vary greatly from many diverse causes—fright, excitement, etc.,—but the diastolic pressure is a much less easily disturbed factor, and may hence be a valuable criterion in deciding whether organic, vascular or cardiac changes are present. Since the diastolic pressure can now be readily, quickly and accurately determined by observing the appearance of the fourth auscultatory phase, *there can no longer be any excuse for neglecting this far more important of the two phases of arterial tension.* We have already learned in most conditions to attribute more importance to the diastolic than to systolic readings.—*Norris, G. W., Blood-Pressure.*

SYPHILIS OF THE NERVOUS SYSTEM.*

BY FRANK C. STUDLEY, M. D.,

MILWAUKEE.

The purpose of this paper is limited to a rather superficial enumeration of the pathological nervous and mental conditions incident to syphilis infection; and a few practical suggestions appertaining to early diagnosis, the salvarsan treatment of the disease, and the prognosis. No attempt is to be made to treat this subject exhaustively in the very short time allotted to this paper this evening and with this apology for all my paper's defects, I will enter at once upon its reading.

In the bibliography of this paper I have quoted largely from the works of White and Jelliffe, of Wechselmann, Wilhelm and Dinkelacker, of Ravaut, Dreifus, Mattauschek and Nonne.

Syphilitic Disease of the Nervous System is of extreme frequency and infinite variety and presents itself either as an acquired or an hereditary condition.

For the purpose of systematizing the subject in as few words as possible it may be said that syphilis of the nervous system presents itself in active specific lesions first as syphilis of the nerves, or as cerebrospinal syphilis, either acquired or hereditary; and the cerebral manifestations are recognized as meningitis, cerebritis, arteritis and neuritis. All of these specific affections of the brain may eventuate in the mental picture of mania, melancholia or pseudo-paresis. The spinal disease pictures are those of meningo-myelitis, myelitis and the various spinal paraplegias. Then there is a group of syphilitic diseases of the nervous system which formerly was classified under the head of para-syphilitic diseases but which, in the light of the laboratory discoveries of the past few years, permits us to use this term only for the convenience of classification, namely, tabes and paresis; while neurasthenia, hysteria, epilepsy and neuralgia may occur at any time in the course of the disease as manifestations of acquired syphilis. Of the hereditary cases juvenile tabes, paresis, infantilism, hydrocephalus and cerebral or spinal errors of development are the common forms encountered. In former years we divided these syphilitic affections of the nervous system into two groups, namely, specific and the para-syphilitic, and the conception which was held at that time was that the specific affections were microbic and the para-syphilitic purely toxic or chemical. In view of the very notable work upon the so-called para-syphilitic affections of the nervous system during the past few years, however, and the definite isolation of the living spirochete in the spinal cords of the tabetics and in the brains of paretics, we now know that that conception or theory is untenable. Tabes, paresis and cerebro-spinal syphilis are just as definitely manifestations of active syphilis as are the chancre and the syphilitic secondaries. The specific cause of all of these diseases is the living spirochete.

Diagnosis:—The early diagnosis of syphilis is a subject of the greatest importance by reason of its bearing upon the possible development of syphilis of the nervous system and because of its paramount importance to the individual. The possibility of early and positive diagnosis has been greatly facilitated by examination under dark field illumination, the Wassermann test of the blood and spinal fluid, chemical examination of the spinal fluid and the importance in the differential cytological count. It is hardly necessary now to do more than point out the absurdity of the practice of years ago of waiting for secondaries to appear before making an exact diagnosis of syphilis; for early diagnosis and proper treatment is, if anything, more important to the potential sufferer from the later manifestations of syphilis of the nervous system than it is to the sufferer from syphilis in general.

Early diagnosis is all important, in view of the practical certainty of eradicating the disease at once, if the diagnosis is made early, and prompt and vigorous treatment instituted. Every suspicious sore on the genitals ought to be examined at once for the spirochete, under dark field illumination, in simple justice to the patient, not only because the primary stage is the time of election to abort and cure the disease, but for the further reason that this is the proper time to prevent the development of later and destructive syphilitic lesions which attack the nervous system.

For this reason a very great responsibility rests upon the medical profession and particularly upon that medical practitioner who is called to treat syphilis in its primary stage. The time is coming

*Read before the Milwaukee Medical Society.

—is now here—when that medical man in a community the size of Milwaukee who fails to make an early diagnosis of syphilis or who advises the patient to wait until secondaries appear for the purpose of confirming his diagnosis will rightly be held guilty of malpractice. If the medical practitioner is not equipped to properly make microscopical examinations of the primary lesion for the identification of the spirochete, it is his moral obligation to inform his patient of the necessity for such an examination, and refer the patient to a competent laboratory man.

Various attempts have been made to differentiate those cases of tabes and paresis which appear to be amenable to salvarsan treatment, by a study of the cerebro-spinal fluid, particularly of its cellular constituents, with more or less success. For example, some investigators believe that they are able to determine one case of tabes from another, and one case of meningal syphilis from another, as bearing upon their susceptibility to amelioration and cure by salvarsan, simply by making a cytological count of the spinal fluid; the so-called exudative cases, that is, those showing by examination of the spinal fluid marked meningeal involvement, have appeared to do better under salvarsan treatment than the so-called degenerative cases.

In general paresis the number of cells is increased, but not enormously so, as the cerebrospinal fluid rarely shows more than twenty cells to the cubic millimeter. The globulin, however, is profoundly in excess. In fact, the globulin increase is greater in this than in any other syphilitic nervous disease. The Wassermann reaction in the majority of cases is positive, both in the blood and in the cerebrospinal fluid. In tabes, on the other hand, or possibly we should say in those cases that we are now calling tabes, without a descriptive adjective such as exudative or degenerative, the cells are found to be present in numbers ranging from three to four hundred, and the globulin is in excess. The Wassermann reaction is often negative in the cerebrospinal fluid but positive in the blood, even though it has been influenced by treatment administered fairly recently.

Then we encounter a class of cases, clinically tabes, in which the cerebrospinal fluid shows a profound lymphocytosis, up to 1,500 cells in one instance, with upward of 100 polymorphonuclear leukocytes. In this type of case the globulin varies more or less in direct proportion to the number of cells found. The Wassermann reaction is almost invariably found to be positive in the blood, and often positive in the cerebrospinal fluid. No constant clinical distinction between the cases showing a positive and those showing a negative Wassermann reaction in the cerebrospinal fluid has been established.

In other words, tabes is quite a different disease in one sense from what it is in another. Without going further into the question of its pathogenesis, it may be said that a study of the cerebrospinal fluid in cases of so-called parasyphilitic nervous disease suggests that the morbid process in the majority of cases of tabes, in the beginning, is a leptomeningitis which in turn conditions a root neuritis and eventually column degeneration.

From a therapeutic point of view I believe it to be of the utmost importance to recognize this distinction between tabes in the exudative stage and tabes in the degenerative stage. Certain cases of tabes are more benefited by salvarsan therapy than by any and all other therapeutic measures; but it is not every tabetic patient that is thus benefited and perhaps cured. It is only in those cases in which the clinical manifestations of the disease are dependent on a pathologic process in the spinal cord which is attended by profound lymphocytosis.

Don't make the mistake of concluding that every form of psychic disturbance in a tabetic patient is necessarily a form of tabo-paresis. It may be a pure hysteria, or syphilophobia; and so similarly when under proper salvarsan treatment these psychic symptoms have disappeared, do not be mislead into the belief that salvarsan necessarily and alone has accomplished this good result; for it is quite possible that the change is the result of simple suggestion.

If in a case of nervous disease a positive reaction is obtained with the blood serum, the disease may be syphilitic in character or it may be a non-syphilitic disease, occurring in the latent stage of syphilis or concomitant with a syphilitic disease outside of the nervous system, but if in addition to the findings in the blood serum, the cerebrospinal fluid is positive, then one is justified in diagnosing syphilis of the nervous system.

In this connection it may be pertinent to state that experience or lack of experience of various serologists in a large measure will account for the conflicting reports which we receive upon a given specimen of blood or spinal fluid for examination;

and so the medical man must take this particular and uncertain phase of the subject into consideration when relying upon laboratory findings in the determination of the syphilitic origin of any particular symptom complex which shows the clinical picture of syphilis of the nervous system. It is interesting to note at this time what the opinions of various observers have been as to the proportion of those who are infected with syphilis who later develop syphilis of the nervous system. Mattauschek found upon examination of 4,134 cases of syphilis that 3.19% of the patients infected later on developed cerebrospinal syphilis; and various other observers have reported a less proportion and a number as high as 10% or 12%.

There is a variance of opinion as to just when the organism invades the nervous system after infection. Some investigators are inclined to believe that the nervous system is invaded at once, and others that the invasion occurs coincidentally with the development of the secondary manifestations of the disease. It is probably safe to say that in some individuals the nervous system may be invaded from the very beginning, for a number of investigators have made a systematic examination of the spinal fluid within a few days after the appearance of the initial lesion, and definite pleocytosis and increased globulin content have been discovered.

Out of 221 patients examined by Wechselmann, Wilhelm and Dinkelacker in the early stages of syphilis, 158 showed positive findings. Of these there were nervous symptoms in 98 while in the 63 negative cases there were nervous symptoms in 32. When you come to examine the spinal fluid in secondary syphilis, Ravaut found an abnormal spinal fluid in 68% of his cases, Dreyfus in 90%, Mattauschek in 80% and Nonne in 40%.

How can we know by what clinical symptoms may we apprehend that the apparently cured syphilitic is developing syphilis of the nervous system? I regret to state that we cannot tell, for a large majority of these cases are unaccompanied by any subjective or objective symptoms at all. Of course headache is one of the first symptoms, but it does seem as though we should not wait until the disease has actually appeared clinically before taking active steps towards its prevention. I know of no safer rule to apply in all of these cases which come originally under the care of the syphilographer than to make repeated examinations of the spinal fluid even when the patient appears to be fully recovered, for surely the time for treatment and prevention of syphilitic disease of the nervous system is at that stage.

The majority of paretics and tabo-paretics will show a positive blood Wassermann. The globulin reaction in these cases will be positive in from 95% to 100%, there will be a lymphocytosis in 95% and the spinal fluid will be positive in from 85% to 90%. In tabes without paresis the positive blood Wassermann has been found in from 60% to 70%, while the Wassermann in the spinal fluid varies from 5 to 10 to 100% according to the amount of fluid which is used, and definitely according to who makes the examination. Cerebrospinal syphilis will show a positive blood Wassermann in 80% to 90% while the globulin and lymphocytosis will as well be positive, while the Wassermann in the spinal fluid shows the same variation that you find in tabes.

The matter which I wish to emphasize in this connection is that diagnosis is to be based not only upon clinical symptoms and not only upon laboratory findings, but due weight must be given to both lines of investigation in reaching a conclusion.

It is not without reason that the medical profession of late has become a little disappointed in the accuracy of the Wassermann reaction and the importance to be attached to its findings. I was greatly interested recently in the study of the comparative results of the Wassermann test by Drs. Uhle and MacKinney of Philadelphia, who distributed 325 specimens of blood collected from 292 individuals to four competent serologists, who reported positive findings in from two to eighteen per cent. of normal individuals; and that in active syphilis, in which the clinical diagnosis was certain, only 50% of positive results were obtained. The difficulty appears to have been partly due to the antigen used, and the conclusion is that uniform results cannot be obtained unless a standardized antigen is employed and a uniform technique agreed upon. The personal experience equation of the laboratory man is equally important.

Prognosis: The prognosis of syphilis of the nervous system is determined definitely by the nature and the stage of the trouble and its pathology but more especially by the prompt and early treatment of the disease, and by this I mean not

only when the disease is full blown, but when the diagnosis is made upon the serologic findings.

Whether or not we are now in possession of a cure for syphilis of the nervous system, remains to be seen. Before this question can be answered a vast amount of clinical material must be collected. The facts are that these diseases occur, they may be diagnosticated and treated before irrecoverable structural changes occur, untreated they progress to dissolution.

It amounts to little to learn that one thousand patients have received an injection of salvarsan and a report made that they have recovered, unless we know the condition of the health a year later and the condition of their blood and cerebrospinal fluid.

The field of battle, so far as prognosis and treatment is concerned in syphilis of the nervous system, narrows itself down materially to the consideration of tabes and paresis, or its combined forms. So far as other syphilitic affections of the nervous system go, the prognosis along appropriate salvarsan and mercury treatment is good; the results in many cases are amazing but the results so far obtained in the treatment of tabes and paresis, more especially the latter, have been somewhat disappointing. Under the best recognized treatment at the present time the prognosis in advanced paresis is very poor or utterly bad. The prognosis in tabes is much more hopeful.

Treatment: It is conceded that salvarsan is a spirillicide, that is, it destroys the spirochetes of syphilis. To do this it must come in contact with them. It is conceded that the study of the cerebrospinal fluid, particularly of its cellular constituents, informs us definitely of the specific disease which we are called upon to treat. In my opinion salvarsan or salvarsan and mercury are indicated in syphilis at any and every stage of the disease.

The determination as to the method of administration of this drug, and the amount as well, are at the present time unsettled. There are adherents to the belief that salvarsan introduced intravenously will do all the good without the danger which accompanies the introduction of this drug by the intraspinous route. There are testimonials from competent men of wide experience who believe that intraspinous medication is the only proper way to treat tabes and paresis. Only recently Cushing of Boston has directly introduced salvarsan into the lateral ventricles of the brain in paretic cases. When affections of the meninges such as influenza and epidemic cerebrospinal meningitis are not responsive to any other than subarachnoid therapy, it would seem to follow that syphilitic affections of the membranes and other adjacent tissues can best be treated by the intraspinous administration of spirocheticidal drugs.

Salvarsan seems to be preferred by the majority of neurologists to neo-salvarsan, as it is regarded as much more active in corresponding doses. According to Nelson and Haynes, salvarsan has given them in nine months 64% of negative serums whereas Neo-salvarsan gave but 33.3% and they conclude that every patient with constitutional syphilis, especially in the early stages, should be examined neurologically and serologically and if there be found any symptoms of nervous involvement or any abnormality of the spinal fluid, intraspinal injections of salvarsanized serum should be given until a clinical and a laboratory cure is effected.

Almost as important as the use of salvarsan in these conditions, is the intelligent use of mercury, general tonic treatment, baths and massage, etc. In certain cases it will be discovered that mercury has even a more important and beneficial influence than the arsenic derivatives, especially in those cases where salvarsan has been tried without beneficial results.

Remarks and Ending: Every one who has ever suffered from syphilis is a potential candidate for syphilitic diseases of the nervous system and the possible fate of every syphilitic with respect to the integrity of his nervous system is determined in the first weeks or months of his infection since it is then that the nervous system is definitely invaded.

The man in the street tells you that salvarsan is a failure, your patient frequently looks askance at you when 606 is suggested for him and tells you that his family doctor says that protoiodid of mercury and iodid of potash will accomplish the same results. Medical journals tell you that paresis and tabes cannot be cured by salvarsan; but if the doctor in search of the truth and the remedy for these diseases is influenced in the least by this prattle, which is frequently disinterested and superficial, it transcends all understanding. Up to a few years ago we never hesitated to prescribe mercury and iodid of potash for those cases and now

when we have a stronger weapon in our hands than ever before to combat these diseases let us not take the position of the sceptic of a few years ago who looked askance at electricity as a motive power and doubted the possibility of wireless telegraphy and the flying machine.

A CASE INVOLVING DIFFERENTIAL DIAGNOSIS BETWEEN PARESIS AND MANIC-DEPRESSIVE INSANITY (EXPANSIVE FORM) IN A SYPHILITIC SUBJECT.*

BY RICHARD DEWEY, A. M., M. D.,

WAUWATOSA.

The patient is a native of Russia, of Hebrew race, age forty-six, married; two healthy living children, none lost, no miscarriages; occupied in publicity promotion. He had one brother who died insane; family history otherwise healthy. Patient had himself suffered an attack vaguely described as "mental depression" some years previously. Some months before coming to me he showed a departure from his normal mental state. He had been depressed to some extent on account of business reverses and his depression was followed by a gradual development of an exalted mental state. In this condition, he was placed under the care of a large general hospital, and the investigation of his history there developed the fact that he had suffered from a chancre more than twenty years previously which was treated only locally and was not known to have been followed by any secondary symptoms. A Wassermann test of the blood at this time proved negative, but spinal fluid test was strongly positive. The latter contained thirty-seven cells to the cubic mm. The Nonne globulin test was very strong and the Lange colloidal gold test extremely so. It was of the type considered characteristic for general paresis, though sometimes found in other forms of syphilis of the nervous system. The patient was given salvarsan intravenously and 20 c. c. of pure serum by the Swift-Ellis method intraspinously without unfavorable reaction. The patient's mental excitement increased. He was noisily talkative, expansive and inclined to risqué remarks and stories (not natural to him when well). He remained but five days in the hospital and was then placed in the care of a Christian Science Healer as attendant. He remained rather unmanageable and without insight into his own condition, could not understand why he was restricted in any way. He gained access to a telephone in spite of his attendant and telephoned to his family. Because of an overpowering impression, communicated in some "supernatural way," that fire was to consume either the building where he was or the one occupied by his family, he did not even know which. His irrational conduct continued, he went with his attendant to a moving picture performance and as he considered the exhibition very fine and noticed that only a small number of spectators were present, took occasion at the close of the performance to address the audience and urge them to come again and bring their friends as the business deserved to be better patronized. He then went to the manager's office and insisted on talking with him, wanting to make a contract to advertise his show in an adequate manner. The people would not listen to him though he insisted they should and he was so persistent that a policeman was finally called and he was ejected. Later, he was committed to the detention hospital, and sent to the State Hospital. At first he was exceedingly unmanageable, pugilistic and maniacal, remaining in this condition through two months. There was gradual subsidence of excitement and friends visiting him in the next month found him quite normal. The diagnosis of paresis had been made at the local hospital and was confirmed at the State Hospital.

The patient came under my care a month later. I found him on examination, so far as his mental condition was concerned, quite normal with the exception of apparent lack of "insight." He could not believe that he had ever been mentally deranged and explained all his disordered actions very ingeniously and in what to him was an entirely logical way. In cases where he had assaulted fellow patients, he had, as he thought, ample ground for doing so, his explanation of his conduct was, that he had no means of occupying himself in the way to which he was most accustomed, with reading or writing, not having glasses upon which he was dependent. After his second month at the State Hospital, however, and when he had obtained glasses so that he could occupy himself with read-

*Read before Wisconsin State Medical Society, Oct. 6-8, 1915.

ing, and finding opposition and turbulent conduct useless, he took a quieter attitude, sought to make the best of things and began to gain physically. After coming under my care he continued to insist there had been nothing the matter with him, but when members of his family visited him and described to him his conduct at the time he was sent to the state hospital, which convinced *them* he was insane, he for the first time gained "insight" into his condition and candidly admitted he must have been "crazy." From this time his history was uneventful. From day to day, he showed improvement in mental and physical condition and his anti-luetic treatment, begun at the local hospital, was continued; a course of inunctions of mercury was given, and after a month, a spinal puncture was made. This was followed by rather pronounced reaction: headache and nausea for two or three days. The examination of spinal fluid at this time gave the following results: Spinal fluid under no pressure, globulin doubtful, cell count 20. Wassermann test of spinal fluid was very positive. Seventeen days later, salvarsan injection was given intravenously. Patient continued to improve and in another month he was discharged to his home.

As to diagnosis in this case I would say, an absolute statement does not seem to be possible. The strongest probability is that the patient suffered from a functional psychosis (Manic-depressive insanity) with cerebral syphilis as a possible complication; but not from paresis, and the cerebral syphilis was not wholly demonstrable. His psychosis was of a grandiose nature and taken in connection with the fact that the "Wassermann" test showed constitutional lues, led to the diagnosis of paresis. Neither mental nor physical symptoms of paresis were present during the time the patient was under my care. Pupillary reactions to light and accommodation were normal. The eye grounds were normal. There were no facial tremors or speech defect. The patient showed a level-headedness and normal action of mental faculties inconsistent with paresis. His attitude in regard to his own case was rational. He declined to affirm or deny anything with reference to his own condition, leaving it for others to judge—a thing hardly to be expected from a paretic. Two letters, written to his friends at home, were submitted to me with a request that I would read them. They gave every evidence of a normal and logical state of mind. I was also later informed by his wife that when she visited him and they were together at a hotel, he refrained from exercising his marital privileges, as I had advised him to do—something hardly to be expected in a paretic of the euphoric type, even when enjoying a remission.

The patient left the sanitarium and returned to his home and he was seen again after having been at home for five weeks and the findings in his condition were as follows:

Physical state: The only abnormalities found were a slight Rombergism and some unsteadiness of gait and station when standing or walking with eyes closed. There is a slight suspicion of general arterial thickening. Tendon reflexes somewhat irregular in response, but in no case absent and in no case exaggerated, except the abdominal reflex which was heightened on both sides; deep reflexes of left side were less active than the right. A degree of nervous depression was present and muscular tension as often noted in anxious and depressed states, which modifies reflexes; reinforcement showed them to be more normal. No ankle clonus, no Babinsky. These were the only physical signs suggestive of any central lesion. The eye-grounds were normal, the reaction to both light and accommodation perfect. Speech and writing were normal and lingual and facial muscular tremor were entirely absent.

The sole morbid mental condition to be noted at the present time is depression for which an entirely adequate cause exists in his external circumstances and as a reaction from the maniacal state. He plays, sings, writes and speaks correctly. There is no blurring of ideas.

It is possible that a diffuse arterial thickening or other organic change in cerebral tissues may be present, considering the syphilitic history, but the symptoms are not sufficient to absolutely establish or localize it.

Kraepelin, in treating of differential diagnosis between Manic-Depressive conditions and concomitant brain syphilis, speaks of the difficulty of absolute diagnosis in some cases where both syphilis and Manic-Depressive insanity are present. As tending to suggest structural syphilitic involvement of nerve tissue, he mentions sluggish pupils, disturbance of speech and writing, attacks of unconsciousness, convulsive manifestations. Of these, the only symptom present in this case is the slight inconsistency of response in the reflexes. I have noted that slight Rombergism was present.

One of three hypotheses must hold good in the interpretation of this case.—It is one either of recovery from manic-depressive psychosis, perhaps having a background of cerebral syphilis, or if a case of paresis, decidedly non-typical and marked by a perfect remission of all mental symptoms; or (most improbable of all)—a recovery in paresis.

Note:—A conversation with a member of patient's family four months after he left my treatment conveyed the following information: He appears normal in all respects. It is stated he has not been able to get work and this has discouraged him to some extent, but his wife sees nothing abnormal about him otherwise. Memory not impaired, no undue irritability, or difference from normal self as he had always been of a retiring disposition.

Later, in April, 1916, seven months after his discharge, information was received from the patient to the effect that he was successfully engaged in employment in Publicity and Promotion Department of a large corporation and was meeting with excellent success. The position he occupies is one which could not be held by a man not in possession of full mental capacity.

DISCUSSION.

Dr. Gilbert Seaman, Milwaukee: The term manic-depressive insanity is a comparatively recent term in medicine. It is true that the manifestations of this group of cases had long been recognized, but it was not, I believe, until Krapelin rearranged the classification of insanity, that this term as applied to these cases became familiar. As pointed out long ago by Tuke, in many cases the character of the depression or exaltation is maintained throughout. A large class of cases exist in which it is impossible to say whether they are melancholic maniacs or maniacal melancholics. All forms of mania are said by Krapelin to be to a certain degree not only a true subversion of states of circular depression, but in themselves are nothing but a stage of maniacal depressive insanity with recurring periods of depression. The delusions of manic-depressive insanity are more apt to be delusions of sin and persecution, than those of grandeur, but delusions may be entirely wanting or unexpressed. In considering a diagnosis of manic-depressive insanity one must also consider dementia-praecox where such consideration would suggest itself. In paresis we are of course forced to consider the physical symptoms, inequality of pupils, and irregularity, absence of pupillary light reflex, defects in speech, the history of infection, the change in the writing indicating alteration of muscle balance, the facial spasms, the trembling of the tongue, the sensory changes, the disorders of the reflexes, absence of knee jerk, the changes in station, and frequently retention of urine. I still believe that paresis is a fatal disease, and am inclined to think that most if not all cases diagnosed as paresis which recovered, were cases of mistaken diagnosis, though I am aware that some cured cases have been reported which apparently were paresis.

In the consideration of these cases the neurologist and the ophthalmologist have much in common. It is of course in the early stages of paresis that the diagnostic difficulties are met with. In the later stages of the disease there are few difficulties in diagnosis as a rule, therefore the existence of early physical signs may be of great importance in clearing up the diagnosis. It happens, however, that in the very early stages there are no manifestations either in the pupils or the eye-grounds but they may be a slight degree of amblyopia, with or without disturbances of the color sense, and this often antedates demonstrable disturbances of the pupil or changes in the eye-grounds. Visual hyperesthesia, or as one might say, visual obtusion, is apparent and appears in harmony with the lessening of cutaneous sensibility which occurs in most cases sooner or later and this may actually amount to a loss of vision. It is well-known and recognized that optic atrophy may be the first symptom of paresis noticed. Associated with the inequality or irregularity of the pupil one of the earliest symptoms is sluggish reaction to light or if the pupils are equal, they react to light in different degrees, and this difference in the promptness of response to light between the right and left pupils is said to be almost a rule. Distinctly small pupils are frequently seen and are of diagnostic value later on in paresis, fundus changes are not so frequently observed. In the vast majority, perhaps eight-tenths of all cases of paresis, ocular symptoms are present and of course this is not the fact in manic-depressive insanity. It is unnecessary to say that many of these ocular symptoms occur in brain disease other than paresis, and some of them may be noted in normal people. In a small proportion of cases, mydriasis may be noted especially during periods of agitation. As in tabes, the reaction to accommodation is often preserved after the light reflex is abolished. Changes in the eye grounds, while common in paresis, are perhaps less frequent than in tabes. Contracture of the visual field, heminopsia, palsies of the cranial nerves, the 3rd, 4th and 6th with strabismus, diplopia, ptosis are observed. But these eye changes are not peculiar to paresis and must be considered in connection with the entire picture of the case. In considering the diagnosis, especially as relates to paresis, it must not be forgotten that, during the past few years, studies of the blood and cerebro-spinal fluid have given results of importance, first in confirming the specific origin of paresis and secondly in affording methods for diagnosing the existence of the disease. It would seem as though the development of laboratory methods will in the future be of the greatest aid to the neurologists and the psychiatrist and, I think that we are fortunate indeed, to have a laboratory for this work at our disposal such as the one recently established at Mendota.

So far as my opinion of the diagnosis or differentiation of this particular case is concerned, I would say without hesitation that Dr. Dewey's apparent conclusion

is correct. I believe that his first proposition is the one that more particularly applies to the case.

Dr. Mary E. Pogue, Lake Geneva: I do not wish to enter into a discussion of whether this is manic-depressive insanity, paresis, or cerebral lues, but I should like to ask Dr. Dewey if he has discontinued the anti-luetic treatment; if he would feel safe, with a high cell count of 20 per cubic millimeter and a positive Wassermann, in stopping his treatment?

Dr. Richard Dewey, Wauwatosa: I think I have only to answer the question of Dr. Pogue, and to say that the patient continues to receive anti-luetic treatment at his home. That was my recommendation.

HEALTH SUPERVISION OF SCHOOL CHILDREN.*

BY GEORGE P. BARTH, B. Sc., M. D.

That Medical Inspection or, probably as it should be more properly called, Health Supervision of School Children, is of vast benefit in and during the process of educating children so that there may be secured ultimately for every child, normal or defective, conditions of life compatible with that full and effective development of its organic functions, its special senses and its mental powers, which constitute a true education—to quote from a Memorandum of the British Board of Education—is no longer doubted among those who have studied the question. That it should also be a department of school administration in the larger cities at least and in states is also granted, as evidenced by the fact that it is so administered in about 75% of cities.

The report of the Committee on Medical Inspection of Schools of the American Medical Association has set a high standard for departments. The report, June, 1911, gives the purposes of the work as follows:

1. The establishment of biennial, annual and, when necessary, more frequent skilled physical and developmental examinations of pupils and students by a staff of experts. The establishment of initial examinations of pupils by the teaching force of the schools, as far as the teaching force is qualified, prior to the skilled examinations by experts.

2. By effective action, based on the data of these examinations to secure (a) The correction of physical anomalies and thus remove the growth barriers of children and youths, and (b) whenever possible and practicable to adjust educational activities to meet the requirements of physical and mental health, growth and development, and thus establish a special field of education for the maintenance of continuous health and development by supervision of pupils and students.

3. To maintain a scientific and systematic study of mental retardation and mental deviation of pupils and students by skilled examination, and whenever possible and practicable, by skilled training in special schools.

4. To establish skilled physical and health examinations of candidates for teachers' positions prior to their selection to determine vital fitness for their work, and thereafter to maintain continuous supervision of health and efficiency to teachers as related to the work of the schools.

5. (a) To organize and supervise courses of technical instruction in hygiene for pupils, students and teachers, in the means of conservation of physical and mental health, growth and development; in the means of correction and prevention of defects, disease and degeneracy; (b) whenever necessary for efficiency, to give practical and technical instruction to the teaching force of the schools, while engaged in teaching, in the initial physical and developmental examination of pupils; in the skilled physical and developmental and psychoclinical examination of exceptional pupils, abnormal and supernormal.

6. To establish and maintain well equipped medical, anthropometric and psychoclinical laboratories in the public schools which shall afford opportunity and equipment—

(a) For sufficiently skillful medical, anthropometric and psychoclinical examination of exceptional pupils and of all pupils requiring special examination.

(b) For such technical training of teachers in the laboratory and experimental phases of educational work, connected with the physical and mental examination of pupils, in clinical psychology and in experimental pedagogy as is essential for the intelligent handling of pupils.

(c) For essential work in hygiene and sanitation.

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*Read before the Milwaukee Medical Society, April 11, 1916.

7. To exercise expert sanitary supervision in the planning and maintenance of school buildings and grounds.

8. To bring about the establishment of dental and medical clinics for pupils whose parents are financially unable to provide essential medical and dental aid.

9. Whenever possible and practicable, to cooperate with state, county and city health officials in the detection of and reporting of contagious diseases.

10. Each department of educational hygiene to constitute a bureau of practical investigation and research in education hygiene, and as such to cooperate with state bureaus of education hygiene whose functions will or ought to be the organization and supervision of state-wide work and investigation in this special field of education—looking forward to the establishment of a national bureau of educational hygiene.

To meet these requirements would necessitate a large force of trained people. It is a standard toward which medical departments of school should strive however.

With respect to the first provision or physical examination it is important that entrants or kindergarten children receive an examination. It has been the aim to examine firstly, the kindergarten children or entrants so that defects may be discovered in children as early in their school career as is feasible at present, and by a process of elimination, place those children in whom physical or mental defects would preclude approximately normal advancement in a class more suitable to their abilities; secondly, those who having reached the primary and secondary grades and find it impossible to keep up; thirdly, those who through physical or mental disability did not enter school at all or were compelled to stop school attendance by intercurrent disease.

The subjoined statistics will show in some measure the percentage of occurrence of some of the physical defects from which school children suffer. Of course, it must be understood that these figures are not absolutely accurate in all respects, due to the necessary provision that clothing is not removed, except in doubtful cases and then only in the presence of parent or guardian. Thus some of the more obscure lesions will fail of detection.

Total Physical Examinations....	103,358	
No. Treatments Recommended...	12,225	11.7
Hyper Tons.	20,481	19.7
Adenoids	2,064	1.99
Defective Nasal Breathing.....	1,850	2.75
Defective Teeth	61,989	59.9
Defective Vision	13,549	21.9
Defective Hearing	546	.528
Respiratory Disease	398	.394
Cardiac Disease	890	.861

The physical examination blanks of this city provide for nine annual examinations, thus following the child throughout its school course, but with a staff of ten physicians to fifty-six thousand children annual examinations were not possible. The defect is recorded on the face of the blank and on the back of the blank the recommendations of the examiner as to treatment and whether such treatment has been received, or whether the parents refuse to provide treatment, and if the defect does not admit of cure, advice as to the future handling of the case, e. g., a valvular heart lesion and indulgence in competitive athletics.

In securing results not only in the correction of physical defects but also in acute conditions such as skin and eye lesions, proper care of acute infectious diseases and in countless other conditions affecting the health and welfare of children, an efficient follow-up system by means of a well trained nursing staff is essential. Each consultation with the child in school, each visit of these devoted women to the home constitutes a lesson to the family in physiology and how to live. This is no mean factor, as shown by the monthly record of visits to the homes, school consultations, visits to the dispensary, etc. It is largely through them that the department is able to maintain the close relationship with charity and relief organizations, hospitals, and dispensaries so necessary in order to provide relief to the necessitous.

One of the greatest difficulties with which the department has had to contend is the lack of dispensary and hospital facilities. This was compensated for to a degree however, by the ready willingness of the physicians and dentists of the city in accepting patients without pay when recommended for free treatment by the department, and to these we extend our thanks.

Milwaukee is well in the van as far as providing means of education for those requiring special

equipment and educational facilities, but much remains still to be done. Thus we have classes for defective vision, classes for the deaf and dumb and defective hearing, for mentally deficient, for defective speech, one open air class, but provision for more is under way, crippled children who are unable to attend school are being taught in their homes.

And this leads me to say a few words on vocational guidance.

Where physical or mental defects, or both, in a child make it reasonably certain that the child will not be able in the future to compete with other members of society in gaining a livelihood it seems to me that it is well within the province of the Board of Education to provide instruction in some industrial art compatible with the capabilities of the child in question. This applies particularly to the crippled. In the issuing of working permits, it seems to me that a physical examination should precede such issuance. A permit limiting the kind of place and work would probably save some lives to the state by preventing a child subject to bronchitis or asthma from working in a dark and dusty place, an epileptic from proximity to dangerous machinery, etc., etc.

Of course, vocational guidance means more than this and a beginning has already been made in the establishment of boys' and girls' trade schools and continuation schools.

One of the questions which promises to be more vexatious in the future than it is even now is the mental defective in the schools. As an educational problem purely and simply it resolves itself upon the proper diagnosis, treatment and classification of those in school who are exceptional or mentally different from the usual student and the provision of a curriculum which will meet the capabilities of children with the ultimate view of making them useful citizens as far as this is possible. The former—diagnosis, treatment and classification—properly belong in the realm of medicine. The latter—provision and supervision of education—may well be left in the hands of the psychologist and educator.

The Department of School Hygiene has always maintained a close co-operation with the Health Department of the city, the departments exchanging reports daily. The school doctors and nurses are governed by the following rules with respect to the control of infectious diseases:

"When a positive diagnosis of a reportable infections disease is made in a school, the name and address of the pupil must be reported to the Health Department and the Central office by telephone before leaving the school, and the child excluded forthwith.

"All cases of infectious disease coming under the observation of the inspector, which are not properly safeguarded, shall command his attention. Proper instructions are to be given to the family and the matter reported to the Health Department. All suspected cases of infectious disease which might have an influence on one of the schools are to be investigated by the inspector in charge of the district and action reported to the Chief Medical Inspector."

The Attendance Department and the Hygiene Department working hand in hand, it is almost impossible to conceal an infectious case.

As far as I know no department has as yet succeeded in controlling the so-called minor diseases of childhood, to-wit: Measles, Chickenpox, Pertussis and Mumps, because of the great difficulty in making an early diagnosis.

I am prone to believe also that the more strict supervision of the case by the parent owing to the discovery and prompt correction of neglect by the watchfulness of the school nurse has resulted in a greatly reduced number of defects due to sequelae and complications.

PNEUMONIA.

Ten per cent of the deaths in the United States result from pneumonia. It is estimated that during the past thirty days this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases which outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing and even has surpassed the mortality from tuberculosis. Seventy per cent of all cases occur between December and May. It is distinctly a cold weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in the mouths and throats of healthy persons and it is

only through the aid which we unwittingly extend to them that they are transformed from harmless organisms to one of man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of la grippe. Individuals suffering from this infection are peculiarly susceptible to respiratory complications and should properly observe every hygienic rule. Inflammation of the upper air passages, pharyngitis, bronchitis, and tonsillitis, often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping cough, frequently prepare the way for pneumonia. Anyone who through neglect or carelessness permits the spread of these infections is therefore open to the severest condemnation. Exhausting disease, of whatever nature, is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome, and hence predisposes to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this, the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds, and the chilling of body surfaces as a result of wetting. The combination of lack of food and fatigue proves particularly disastrous during the winter season and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment, and overwork are alike the advance agents of the infection. Overcrowding, in street cars, theatres, and other public places, is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate coughing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be, and probably is, a factor in infection and consequently should be avoided by every citizen. A remaining most important agent should be mentioned—alcohol. It is in truth the handmaiden of pneumonia, and there is none more certain or more sure of success, especially if liberally and continuously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality of from ten to thirty per cent, it should be remembered that our scientific data are not yet complete. There are problems connected with immunity, predisposition, and the occurrence of epidemics which are yet to be solved. It is known that pneumonia frequently attacks those who are perfectly well, and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is, however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility and therefore the incidence of the disease.—*U. S. Public Health Service.*

On the Transition of Urotropin Into the Aqueous and the Dissociation of Formaldehyde. Remele, J., (From the eye clinic of Prof. H. Sattler in the University of Leipzig. v. Graefe's Arch. f. Ophth., 90, p. 426), reports on his experiments on rabbits, in which he found, that urotropin, injected intravenously, at once appears in the aqueous and soon reaches the highest concentration, i. e., from 1/1000 to 1/5000 after injecting 2 grams of a 10 per cent solution. This remains for about four hours and gradually decreases. Formaldehyde is dissociated about one and one-half hours after injection, and is still found after nineteen hours. Its quantities are very small. C. Z.

NATIONAL CONFERENCE OF CHARITIES AND CORRECTION.

"As a man's hair whitens and his features become furrowed, his back bent, and perchance his girth unduly expanded, we say, 'He shows the marks of time.' Time, however, has nothing whatever to do with such changes."

This incisive attack on the question of "Longer and More Effective Living" was made by Dr. Eugene Lyman Fisk, director of the Life Extension Institute, New York City, in an address before the forty-third National Conference of Charities and Correction at Indianapolis, May 10-17. The speaker said that our conception of this question is worthy of the days of scholasticism, and further, "If we protect the cells of our bodies from injury or strain, from poison, both internal and external, from starvation and bacterial attack, we shall be able to clip the wings of time."

An unexpected turning of the discussion on this subject into educational channels was accomplished by Professor L. J. Rettger of Terre Haute, Indiana, who claims that the most important factor had been overlooked by failing to make rational use of the public schools. He said: "One cannot overlook the fact that the drunkard, the tramp, and the criminal were for many years under the instruction of our teachers in the public schools."

Under the leadership of Dr. J. N. Hurty of the Indiana State Board of Health and Dean Charles P. Emerson of the Indiana University School of Medicine, five sessions on health subjects were arranged. Beyond these, however, health discussions were sprinkled throughout the entire series of forty-five sessions of the conference. Illustrations of this fact were the striking presentation of the health needs of rural school children made by Dr. Taliaferro Clark of the United States Public Health Service.

The conference at Indianapolis lasted eight days and broke all previous records for size of gatherings of men and women engaged professionally in social work. The main divisions of discussion were upon children, corrections, the family and the community, feeble-mindedness and insanity, health, inebriety, promotion of social programs, public and private charities, and unemployment. The next session will be held at Pittsburgh during the spring of 1917 under the presidency of Frederic Almy, Secretary of the Buffalo Charity Organization Society. Mr. Almy has already announced as the subject for his presidential address, "The End of Poverty."

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EDITORIALS

RANDOM REFLECTIONS FROM A RECENT TRIP.

THE triennial meeting of the American Congress of Physicians and Surgeons was a splendid meeting. It does one good to mix with the fellows who are doing things and to cull ideas and notions from many minds. After all, the hearing of papers is the least important function of a national meeting. One can sit down comfortably and read all the papers when they are published but one can not read the men who write the papers unless he attends the big gatherings. One learns to evaluate men when one talks to them and hears them talk. One finds after returning from a large gathering that he can make much better selection in his reading. The effusions of some he ignores, of others he skims over, of others he reads, of others he studies. One is thus enabled to cover a considerable amount of Journal literature with much less effort and with much saving of time. One learns that it is not always the man who writes the most who knows the most.

We heard some most interesting things, one of which is given special notice. We heard much about acidosis. The whole country seems to have gone acidosis-mad. In a symposium on this subject it was made clear that we should have to modify our terms somewhat. The term acidosis should not be used to designate both the acidosis of diabetes and the acidosis of nephritis. No nomenclature was decided upon however. One session of the Congress was devoted to "Syphilis." That was rather a large order. Dr. Homer Swift talked on "The Treatment of Cerebro-Spinal Syphilis." He thinks that his salvarsanized serum is of value in cerebro-spinal syphilis and in tabes but not in general paresis. No hope was held out for the general paretic. Emphasis was laid on prevention of the condition so far as we could by thorough treatment with mercury and salvarsan controlled by Wassermann tests. Dr. Hugh Cabot's paper was on "Syphilis and Society." He was on the whole rather pessimistic in regard to any legislation at present which attempted to make syphilis a reportable disease. He ridiculed the first Wisconsin Eugenic Law and read the majority opinion of the Wisconsin Supreme Court in support of the law, causing much amusement to his auditors. He paid his sarcastic respects to a state so chivalrous that it did not subject its women to any examination before marriage. He criticised other State laws, most of them abortive attempts to do something to better a grave situation. He felt that no steps could be taken to put any laws on the statute books until the public had been educated up to demanding them. Up to the present time the laws have been passed by legislators necessarily without knowledge of the problem, goaded by one or more pseudo-reformers and swept off their feet by formidable columns of statistics. Free hospital treatment and no publicity he advocated for the present to care for the syphilitics.

At the second session of the Congress the subject was "Immunization and Its Practical Applications." Papers were read by Drs. Theobald Smith,

Ludwig Hektoen, and W. H. Park. The general consensus of opinion was that the modern indiscriminate administration of "mixed" vaccines of commerce was an indefensible and possibly harmful procedure. In fact, vaccines had not proved their worth principally because of the abuse to which they had been put by pseudo-scientific vaccine manufacturers. The whole question must be studied over again and careful work done in order to gather absolutely reliable series of statistics. Some, for example, Dr. Frank Billings of Chicago, expressed the opinion that after long trial they had come to the inevitable conclusion that vaccines were not of material assistance in the cure of diseases in which foci of infection could be demonstrated. When a focus could not be located and removed vaccines were of no value. It was interesting to hear admissions of failure from some of the speakers. It revived the self-confidence that one loses when he can not get results which he is assured will follow if he uses the substance according to directions duly given in detail.

Really, it was a fine meeting and everyone had a fine time seeing old pals. After all the real purpose of a big meeting is to get the boys together, turn them loose to know each other and promote better fellow feeling. Did some one say papers were the essential feature? Oh, dear, no. Papers are the pegs upon which we hang our excuses for getting away, these excuses being made either to our consciences or to our wives.

ANOTHER SOURCE OF INFECTION IN TUBERCULOSIS.

WE are frequently confronted with the tuberculous patient in whose history no light is shed upon the source of his infection. At the meeting of the Association of American Physicians held recently at Washington, Dr. Lawrason Brown of Saranac Lake read a paper entitled, "The Occurrence of Living Tubercle Bacilli in a River Contaminated with Sewage from a Health Resort."

Careful experiments revealed some interesting facts. Living tubercle bacilli were found only in the surface water. They were found in many cases in small particles of sewage. The farther away from the source of contamination, the less the number of bacilli, until a point was reached several miles below the sewage outlet where no bacilli could be found. Further, on cloudy days tubercle bacilli were found a mile or more farther down stream than on sunshiny days. This is but a bare outline of the paper.

Certain facts seem to stand out very clearly as a result of this investigation. First, it is possible for tubercle bacilli to contaminate water which may be used for drinking. Second, only surface water is contaminated. Third, sunlight has a definite bactericidal action on the living tubercle bacillus. These are most important observations. They lend weight to the belief that water flowing in rivers tends to become purified after a time, and they leave no doubt of the effect of direct sunlight as a natural sterilizer.

Every consumptive has tubercle bacilli in his fecal discharges. These bacilli find their way into our lakes and rivers. Mind you, these are living tubercle bacilli. The contamination of drinking water by typhoid bacilli pales into insignificance in the contemplation of the hundreds of tuberculous people who day after day pollute our drinking water.

This is of vital interest not only to cities like Milwaukee, the inhabitants of which drink diluted sewage, but to the small communities of a few families who live along a stream and obtain their water supply from it as it flows innocently by.

The imagination need not run riot in an attempt to picture the dangers of this source of tuberculosis. What is actually happening daily is food for deep reflection and for vigorous action on the part of all communities large and small.

HOW LONG, OH LORD!

THIS spring a woman lies dying in a Wisconsin community of pulmonary tuberculosis. Throughout the past winter she has been treated by a learned disciple of Aesculapius for whooping cough!!

What can "God's patient poor" do to protect themselves against such malpractice? What will the medical profession ultimately do?

Now the people die; their relatives grumble and complain for a few days and then relapse into their usual condition of apathetic dumbness. Leaders in the medical profession grumble too, mutter a bit

and relapse into their usual condition of intellectual aloofness.

And the people die—and the worms eat 'em long before their time. H. E. D.

OUR CANCER SITUATION.

THE active campaign against tuberculosis has been the means of decreasing both the incidence and the mortality of this disease. Compared with cancer the tuberculosis problem is altogether different. They touch each other only at one essential point, that is, the importance of early diagnosis. Tuberculosis is a communicable disease, cancer is not. Tuberculosis is a disease bred in filth, in unsanitary conditions, in overcrowding, in ignorance of the fundamental laws of hygiene. It does attack rich as well as poor but the latter are the chief victims. Cancer is not bred by contact in dirty, dark surroundings. The cause is unknown. The well-to-do are more often afflicted than the poor. While we can not prevent the incidence of cancer we can do much to decrease the mortality resulting from the disease.

Through the kindness of the State Board of Health we have been able to obtain mortality tables for the past few years. They show most interesting data. If we take the three most fatal diseases, we find that they are tuberculosis of all parts, pneumonia, and cancer of all parts in the order named. Since 1908 the following are the mortality figures:

	1908	1909	1910	1911	1912	1913
Tuberculosis	2509	2546	2404	2405	2362	2328
Pneumonia	1622	1615	2253	2227	2066	2172
Cancer	1512	1645	1539	1622	1673	1755

If the number of deaths from a disease should remain approximately the same from year to year, and a normal increase in population take place, the mortality rate would year by year become lower.

The figures given above show not only an absolute decrease in the number of deaths from tuberculosis but necessarily a great lowering of the mortality rate per 1000 population. There is no doubt in the minds of anyone that this reduction is directly attributable to the active anti-tuberculosis propaganda.

Pneumonia shows a steady increase in the number of deaths and the mortality rate has also increased.

Cancer shows a rather steady increase with a drop however in 1910. We know of no cause for this. The number of deaths is large, too large in fact for a disease which carries off people in the latter half of life. Both tuberculosis and pneumonia recruit their victims from all ages.

Cancer is primarily a disease of adults and of those adults over forty years of age. This mortality with its consequent physical distress and, at times, torment, could be and should be largely reduced. It is entirely within the bounds of possibility to carry on a campaign of education which will lead to an earlier visit to the physician, an earlier diagnosis and consequent eradication of the disease by surgical treatment.

In spite of the exposé of the Cancer Quacks in some lay magazines, we know only too well how many people patronize the vultures, lured on by promises of cure without the knife. In many states a vigorous campaign is being waged. The propaganda has assumed national scope and we do not want to be behind in investigating this problem so that we may have material for a campaign.

The County Societies, we believe, can do much to educate the people both by meetings for the public and by individual, assertive campaigning among the people. The suggestion has been made that every physician should have on his Waiting-Room Table copies of the pamphlet "Cancer Quacks" written by Samuel Hopkins Adams and published by the American Medical Association. All know the power of the written word. Let's begin today to do a little more missionary work to the end that we may fill out our places in the communities in which we live and work.

THE PINEAL GLAND.

AS time goes on the obscurity surrounding the functions of the so-called endocrine glands is gradually being penetrated by flashes of light shot out by experimental research. The veil of darkness is a heavy one and it has taken laborious and painstaking work to lift a corner here and there.

Of all the glands of internal secretion the pineal, tucked away in an apparently inaccessible spot for extirpative procedures, has been the subject of most speculation. The ancients believed that it regulated the flow of vital spirits from the brain to the

spinal cord. It was capable of movement and stood as a guard between the third and fourth ventricle. Descartes, it will be remembered, regarded it as the seat of the soul.

In spite of its position in the cranial cavity, its proximity to the large vein of Galen and to the corpora quadrigemina it has been successfully extirpated in animals. It is about 1 cm. in length and half as broad as it is long. Gilbert Horrax* has recently published most interesting experimental and clinical observations on this gland.

It has been only recently observed that the pineal gland "undergoes a normal, physiological atrophy at the time of puberty." Also, "several cases of tumor of the gland occurring before puberty have been associated with a marked precocity in the realm of both primary and secondary sexual characteristics." To the syndrome produced by extirpation of the pineal body Sarteschi has given the name "macrogenitosomia precox."

Horrax extirpated the glands from guinea-pigs which were from 2 days to 6-7 weeks old, and from young rats. The latter proved to be the better subjects for experiment. The general results of the experiments were that extirpation had no appreciable effect on the growth of the animals but it did cause distinct increase in size of the testicles over the controls and in the testes of the pinealectomized animals spermatogenesis was much farther advanced than in controls of the same age. The pinealectomized females appeared to show a tendency to breed earlier than controls of the same age and weight. It would seem that the physiological activity of the gland is inhibition of development of the sexual function.

Clinically a pineal syndrome has been proposed by Marburg. The symptoms are grouped under three headings: "1. *General.*—These include all the usual signs of intracranial pressure, usually due to a secondary hydrocephalus, and need not be given in detail. 2. *Neighborhood.*—Of these the more important are dependent on pressure on the corpora quadrigemina, giving various oculomotor paralyses and pupillary disturbances, and also those by which the cerebellum is secondarily involved, with ataxia as the main symptom. 3. *Constitutional.*—It is here that we find the various changes for which the name 'macrogenitosomia precox' has been suggested. Coupled with a general bodily overgrowth, the size of the primary sex organs is the most striking feature in the records of these cases, and both the public and axillary hair is noted to be similar in extent and abundance to that of maturity. Again, the change in voice to that of deep masculine type is recorded in one case as early as 5½ years. Mental precocity is also a well-marked symptom.

"The above syndrome usually occurs in boys before the age of puberty, and at necropsy in all cases a tumor replacing the pineal gland has been found. In the case of the girl, no disturbance of the sexual organs was apparent, adiposity being the only metabolic finding."

Horrax reports three cases, in one of whom a tumor of the pineal gland was found at necropsy. This was a boy aged 12. The other two cases, one a girl aged 11, the other a boy aged 7½ are still living but the symptoms and signs were so suggestive of pineal disturbance that he reports them as such.

He thinks that this pineal gland syndrome may be more frequent than we have heretofore supposed. It would seem difficult in all cases to differentiate this syndrome from pre-adolescent pituitary gland disturbance. Up to the present there is no therapy for these cases. We record these observations in view of their exceeding interest and we await further developments in this entertaining field.

*Horrax, Gilbert, Arch. Int. Med., 1916, 17, 607 and 627.

HEALTH INSURANCE.

THERE is a growing movement on foot in the United States for health insurance. Bills have already been introduced in Massachusetts, New Jersey and New York, and legislative hearings were held in Massachusetts, New York and Washington, D. C. We learn that there is a possibility of a United State Commission being established for the investigation of the entire subject of Social Insurance. There is a State Commission in California now, and the movement is also very strong in Ohio.

Professor J. R. Commons of the University of Wisconsin is one of those who are advocating Social Insurance at every opportunity and it would not be at all surprising if the agitation crystallized into some form of legislative action before many years pass.

We, as the profession vitally concerned, must naturally be most interested in this whole subject. We have consistently fought for the prevention of disease against opposition of the very people whom we sought to benefit. They, being human, could not understand how any profession could deliberately set itself to curtail its own income as the matter appeared to them, and so the people have been chary about doing what we asked, as they feared "a nigger in the wood pile." Now, health insurance is in the air, and we shall probably have to face new problems in our relations with the community at large. We will admit that health insurance represents the most important step yet taken for prevention of disease and improvement of the health of the community.

When one considers the truly marvelous results of an organized effort in health prevention such as in the Panama Zone, one must feel that eventually the people will see that the one way to protect the health of the community is to have concerted action.

No doubt there will be a cry from those adherents of isms and pathies to the effect that any measures advocated by doctors, or those who still are blind followers of regular doctors, destroy their liberty of action and prevent them from sending their chillren with "so-called scarlet fever, so-called diphtheria, etc.," to public school.

Industrial Insurance is here on a working basis. The idea when first broached was considered socialistic and revolutionary. Here we are now quietly accepting it and trying to adjust ourselves to its workings. Let no one say Health Insurance is impossible. We live in an age of miracles. As sure as the sun rises daily we, in this generation, will see the enactment and enforcement of laws governing Health Insurance.

BABY WEEK.

DURING the week of May 14 to 21, Baby Week was observed in Milwaukee, the dates fixed for its general observance throughout the country, March 4 to 11, being considered less well suited to Wisconsin's climate

A large exhibit was prepared in the Auditorium in which in separate booths were shown the work of the various hospitals and institutions caring for infants and children, the work of the Health Department in safeguarding the milk supply, the work of the School Medical Inspectors, and in addition a carefully censored commercial exhibit showing clothing, utensils, furniture, etc., needed for the care and use of children. An exhibit of this kind would have been extremely popular with the proprietary food manufacturers if they had been allowed to use it, but no exhibits of this character were admitted.

Each day, talks and demonstrations and moving picture exhibitions were given at short intervals during the afternoon and evening by physicians, nurses, and social workers. The talks were short, simple, and practical and were listened to with great interest by large audiences.

Longer addresses by well-known physicians and sanitarians were given during the evenings of several days of Baby Week.

A Baby Contest was held. The examinations were made the week preceding Baby Week, the babies being examined in small groups at different stations scattered throughout the city. In this way there was avoided the bringing together of large numbers of babies at one time and place.

The planning and carrying through of a Baby Week program is a big piece of work. Naturally the question arises: "Is it worth while?" Viewed in the light of Milwaukee's experience, the answer is an emphatic "Yes." While no direct results can be shown to prove the good effects of the efforts spent, the interest in "Better Babies" which was aroused and the people who were reached by the exhibits and by the talks justify one in feeling confident that much good was accomplished.

Those were reached and given an inspiration who needed it most. A. W. M.

A GROWING ORGANIZATION.

THE Second Annual Meeting of the Catholic Hospital Association has been held in Milwaukee, June 7, 8, 9. From a rather small but hopeful beginning last year, the Association has jumped into place as a vital force in our modern life. The idea was a good one, and if appearances count for anything, the idea has firmly become rooted and is growing well.

Not the least valuable result of these meetings is the interest taken by the Sisters in the diagnostic side of the hospital, a side which has been sadly neglected. Courses in laboratory technique are being given by the Marquette Medical School and the Sisters are taking the courses. Too long have hese

hospitals worked independently, none knowing what the others were doing and none realizing what a real hospital should be.

Over two hundred Sisters from various hospitals as far north as Nova Scotia gathered to hear the papers and to exchange ideas. The main subject for discussion was Team Work in Hospitals. Physicians from many states were present to read papers and to take part in the discussions. It was a most successful meeting and bids fair to have a great influence upon a large group of private and semi-private hospitals, stimulating the authorities to make their institutions more conformable to modern medical conditions.

We wish to offer our congratulations and express the hope that the next meeting will be even larger and that the Sisters themselves will take a more active part in all the proceedings.

GET-TOGETHER WEEK.

We believe that we do not exaggerate when we say that all the men who were in Milwaukee the week of June 6-10, both visitors and local doctors, had a pleasant and profitable time. It was a good scheme to have the meetings, and the arrangements were on the whole well carried out. At the dinner there were two hundred packed into the banquet hall. We feel sorry for the fellow who wasn't present, for he missed a good time. The toastmaster, Dr. H. M. Brown, was in fine voice and his cerebration was unusually scintillating. We expected as much from him; we were not disappointed. He brought out a varied assortment of excellent talent among our visitors, so that the affair was one of the most enjoyable which we have ever held.

It may not be considered quite nice to criticize the management, but it does seem to some of us that there was too much emphasis laid upon one of the many clinics. There were other things to see and other things to learn besides tuberculosis. Let us not be misunderstood. We are heartily in sympathy with all the methods to aid us in making a diagnosis at the earliest possible moment. But, stand back now, view the program from an unbiased angle, and we think any unprejudiced mind will grasp our meaning. Other interesting clinics were not featured, therefore, there was no attendance at them. This seems unfortunate, for the work of our own men lacked the recognition from the visiting doctors which it rightly deserved.

Muirdale gave the visitors a royal welcome and provided delightful and profitable entertainment in spite of the distance and the inclement weather.

We hope that we may have another week along similar lines at some future date but we respectfully suggest that there be more variety to the program.

"LOOKING BACKWARD."

In 1765 and 1766, Samuel Sharp of London wrote a series of letters, published in book form, which contain some very interesting observations and comments of Italian life of that period. Mr. Sharp seemed to be especially interested in medicine, hygiene and sanitation. There follow abstracts which are extremely interesting:

"All the Italian gentlemen and ladies are very indelicate in the article of spitting before them, never making use of a handkerchief, or seeking a corner for that purpose; but in the theatres their nastiness is offensive to the last degree, not only spitting all about them, but also on every part of the wall, so that it is impossible to avoid soiling your clothes. This habit is carried by some to such excess that I cannot but ascribe the leanness of many Neapolitans, and the sallowness of their complexions to the abundance of this evacuation."

In the light of our present knowledge of the spread of tuberculosis through spitting, we may state that his suspicion was well founded but not in the way he imagined. We must doubt that the sallow individuals became so through their own excessive spitting, but may well believe that they became so through the spitting of others, probably tuberculosis.

In contra-distinction to the carelessness about spitting in public places, note what the same writer has to say concerning the method of handling the contagion of known cases of tuberculosis. To me the smug attitude of superiority of the writer—who, concerning this subject, was really far behind the people he was patronizing—is delightfully humorous. At the same time it is interesting to consider how long it took the scientists to prove or accept this 18th century Italian theory of the contagiousness of consumption. Recall that this was much more than a century before we arrived at our present understanding.

"Their notions in regard to consumption are dreadfully inconvenient to society; they are so fully persuaded of the contagiousness of this distemper. It is a rule without exception, to burn the doors, the hangings and almost the whole furniture of a room in which any one dies of consumption; and lately, they have begun the practice of removing the floor, for further security. At first I smiled at this prejudice, but I soon found it offensive, not only to the Neapolitans, but also to the English who have lived here some time. At present I hold my tongue when they talk on this subject. Men must not be contradicted in opinions, which they esteem, grounded on experience and matters of fact; more particularly when they think the facts have fallen within their own knowledge." — *Health Extension Division, Health Instruction Bureau.*

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NEXT ANNUAL SESSION, MADISON, OCTOBER, 1916.

The Wisconsin Medical Journal, Official Publication

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La Crosse	H. E. Wolf, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	F. V. Watson, Antigo	J. C. Wright, Antigo.
Lincoln	C. C. Walsh, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	S. M. B. Smith, Wausau	R. M. Frawley, Wausau.
Marinette-Florence	E. E. Axtell, Marinette	R. R. Helm, Marinette.
Milwaukee	Franz Pfister, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D. Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	R. C. Faulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	E. A. Morse, Appleton	W. N. Moore, Appleton.
Ozaukee	O. J. Heuth, Cedarburg	G. T. Savage, Port Washington.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulhurt, Reedsburg	Roger Cahoon, Barahoo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B. Bock, Sheboygan	Arthur Knauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	H. Albers, Allenton	S. J. Driessel, Barton.
Waukesha	J. B. Noble, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	H. A. Jefferson, Clintonville	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. P. Vedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

CATHOLIC HOSPITAL ASSOCIATION

The Catholic Hospital Association met in Milwaukee, June 7-9, in the Gesu Auditorium. Dr. C. H. Mayo, Rochester, spoke on June 7 on "The Nature, Necessity and Value of Team Work in a Hospital." Other visiting speakers were: Dr. Austin O'Malley, Philadelphia; Dr. Edward A. Evans, La Crosse, Dr. E. L. Tuohy, Duluth, and Dr. F. C. S. Schuldt, St. Paul.

GRANT COUNTY

Grant County Medical Society held its regular monthly meeting at the Country Club, at Lancaster, on May 11th. There were present Drs. J. H. Fowler, E. C. Howell, F. H. Baldwin, C. S. Hayman, E. A. A. Dunn, W. W. Pretts, J. C. Doolittle, J. C. Betz, J. Oettiker, M. A. Bailey, N. E. McBeath, J. E. Heraty, H. J. McLaughlin, Joseph Godfrey, H. Godfrey, W. Cunningham, C. M. Schuldt, G. C. Buck and M. B. Glasier. Meeting was called to order by the president, Dr. N. E. McBeath. He requested that the papers read be very thoroughly discussed. The first paper, "Deep Suppurations of the Neck, with Report of an Extraordinary Case," by Dr. J. H. Fowler, was a thoroughly prepared, carefully written description of these serious cases. Discussion by Drs. Oettiker, Betz, Doolittle, W. W. Pretts and N. E. McBeath.

Dr. Cunningham read a paper illustrated with plates and skiagrams, on "Bifurcation of the Transverse Process of the Fifth Lumbar Vertebra," with report of a case. This proved an interesting and rather unusual subject, and was discussed by Drs. Fowler, Pretts and McBeath.

The names of Drs. Homer Sylvester of Montfort and G. C. Buck of Plateville were favorably reported upon by the censors, and they were made members of the Society.

The question of holding a Public Health Meeting was discussed. On motion of Dr. J. H. Fowler, it was decided to give our September meeting to this purpose, and the secretary be empowered to fix a date and prepare a program. Drs. J. C. Betz and C. S. Hayman invited the Society to hold an outing meeting at Boscobel some time during the month of July. There being no further business, meeting adjourned.

M. B. Glasier, M. D., *Secretary.*

MILWAUKEE COUNTY.

Milwaukee County Medical Society held a meeting and dinner at the Hotel Wisconsin on May 22nd. A short business meeting was held after the dinner. After the business meeting Frank M. Bruce, president of the Advertisers' Club, addressed the Society on "Advertising of Today." R. G. Griswold also addressed the Society, his subject being "The Business Side of a Profession."

NINTH COUNCILOR DISTRICT.

The meeting of the Ninth Councilor District Medical Society was held at Stevens Point on May 19. A banquet was served at the Hotel Jacobs and covers laid for fifty members. The program of the evening was held at the Public Library.

Dr. J. C. Hayward, president, in the chair, meeting was called to order, and the minutes of the last meeting read and approved as read. Moved by Dr. Barber that a nominating committee of three be appointed to select a candidate for president and suggest places for holding meetings of the district during the coming year. President Hayward appointed on that committee Drs. Jackson, Wood and Southwick, who later brought in a report that they had chosen Dr. Donald Waters of Grand Rapids as president, and Dr. Jos. F. Smith, Wausau, was re-elected secretary and treasurer. The following schedules of meetings was adopted: summer meeting at Grand Rapids, fall meeting at Wausau, winter meeting at Marshfield, and the spring meeting at Stevens Point.

Dr. E. R. LeCount, the eminent Chicago pathologist, who is identified with both Cook County Hospital and Rush Medical College, delivered the address of the evening, which was illustrated with a fine series of stereopticon slides. The subject was "Causes of Sudden Death." After the address a large number of the members took part in the discussion.

No further business being before the Society, it was moved to adjourn, subject to the call of the secretary, Dr. J. F. Smith, Wausau.

John D. Lindores, M. D., *Secretary,*
Portage County Medical Society.

WISCONSIN ANTI-TUBERCULOSIS SOCIETY

The Wisconsin Anti-Tuberculosis Society, the Edward Trudeau Society, and the various medical organizations of the city and state held an anti-tuberculosis meeting in Milwaukee, June 6-8. On the night of June 6, a public meeting was held at the Museum, addressed by Dr. Francis Pottenger, Monrovia, Cal., and Dr. Dunham, Cincinnati. Wednesday morning a clinic at the Children's Hospital and Dispensary at which Dr. Pottenger demonstrated a diagnosis of incipient tuberculosis. At noon a luncheon at Muirdale Sanatorium, in the afternoon a clinic at Muirdale with Dr. Pottenger in charge; at night a dinner at the Hotel Wisconsin by the Milwaukee Medical Society. Thursday morning clinics at the various hospitals in the city. Saturday morning physicians brought cases showing obscure symptoms of tuberculosis for consultation with Dr. Pottenger.

WINNEBAGO COUNTY AND OSHKOSH MEDICAL

A joint meeting of the Winnebago County and the Oshkosh Medical Club was held on May 24th, at the Northern Hospital at Winnebago, Dr. A. Sherman, superintendent of the institution, being the host.

WISCONSIN HOMEOPATHIC SOCIETY

The Wisconsin Homeopathic Medical Society met at the Hotel Wisconsin, Milwaukee, on May 18. The officers for the ensuing year are: president, Dr. J. E. Guy, Milwaukee; vice-president, Dr. John F. Schneider, Oshkosh; secretary, Dr. Mary M. Hopkins, Oconto; treasurer, Dr. F. E. Brown, Milwaukee; censor, Dr. John Lewis, Milwaukee; necrologist, Dr. N. A. Pennoyer, Kenosha; committee on medical legislations, G. H. Ripley, Kenosha, F. E. Brown, Milwaukee and F. T. Clark, Waupun; publication committee, Drs. M. M. Hopkins, Oconto, S. W. Murphy, Kenosha and J. E. Guy, Milwaukee.

WISCONSIN SURGICAL ASSOCIATION

The Wisconsin Surgical Association at its annual meeting held at the Hotel Wisconsin at Milwaukee, elected the following officers for the ensuing year: president, Dr. Charles H. Lemon, Milwaukee; 1st vice-president, Dr. G. W. Nott, Racine: 2nd vice-president, Dr. R. H. Jackson, Madison; 3rd vice-president, Dr. Karl Doege, Marshfield; 4th vice-president, Dr. D. J. Hayes, Milwaukee; secretary-treasurer, Dr. Daniel Hopkinson, Milwaukee; regent, Dr. J. F. Pember, Janesville.

NEWS ITEMS AND PERSONALS

Dr. Charles H. Vilas, Madison, has been appointed a regent of the University of Wisconsin to succeed Edward M. McMahon, resigned.

Dr. Edward B. Brown, Beloit, was on May 3rd re-elected medical inspector of public school for that city.

Dr. G. M. Henbest, Appleton, has opened a branch office at Neenah, Wisconsin.

Dr. John R. McDill, Milwaukee, has been selected as surgeon-in-chief of two field hospitals to be established in Germany and Austria. Dr. McDill sailed from New York on May 27, and will not return to Milwaukee until after next January, having agreed to take charge of the hospitals for six months.

Dr. E. H. Mensing, formerly assistant coroner at Milwaukee, and for the past two years a member of the staff at the Mayo Hospital, Rochester, sailed for Europe on May 27, to assist in the work in the field hospitals in Germany and Austria.

H. K. Thurston, for three years statistician of the State Board of Control, has been elected manager of the Madison General Hospital, to succeed Curtis Livingston, resigned.

Dr. and Mrs. Harold C. Bradley, Madison, have offered to build and equip three rooms to be used as an infirmary in the Y. W. C. A. building, Madison.

A conference of the field men of the State Board of Health was held in Madison, May 5 and 6, presided over by Dr. G. W. Henika, deputy state health officer for the district, and Frank R. King, state plumbing inspector.

Dr. Harold L. Wright, Chicago, for the past six years assistant to Drs. Evans and Young of the Chicago Health Department, has been elected health commissioner of Kenosha, to succeed Dr. John J. McShane, who recently resigned to accept the position of health commissioner at Akron, Ohio.

Dr. J. Donovan, Forrestville, had a narrow escape from death on May 19th, when his automobile rammed into a bridge railing and dropped 25 feet into Green Bay. He suffered slight bruises as a result of his experience.

A motion to amend the complaint in the $25,000 damage suit of Amelia Bear against Dr. Adam G. White, Milwaukee, was denied by Judge Fritz on May 11. Mrs. Bear sought to recover for injury alleged to have been suffered through an operation performed by Dr. White. The case was nonsuited May 4th.

John Schuette, who sued Dr. J. J. Nolan, Milwaukee, claiming that the physician left a splinter in his arm and damaged it, lost his case after a trial by jury in circuit court. A verdict was directed in favor of the defendant after the court was informed that the plaintiff had settled his injury case with the company that employed him.

At a meeting of physicians of Marshfield, the Physicians Post-Graduate School of Marshfield was organized, and the following officers were elected: President, Dr. Karl Doege; vice-president, Dr. John C. Hayward; secretary, Dr. Victor A. Mason; treasurer, Dr. William Hipke.

Dr. G. A. Grinde has opened a hospital at Cumberland under the name of the Island City Hospital.

The Misericordia Hospital, Milwaukee, observed its eighth anniversary on May 26th. Since its organization in 1908 by Archbishop Messmer, the

institution has cared for 1,079 children. The institution is wholly dependent upon charity and private donations for its support. The annual expenses are approximately $12,000.

The Milwaukee Health Department is planning to stop the indiscriminate use of cosmetics provided for the public in ladies' rooms of a number of hotels, according to the current monthly bulletin issued on May 27th.

The Oconto County Hospital, for a sumber of years under the management of a staff of physicians who controlled the stock, is now under new management, the control having gone to Dr. T. C. Clark of Oconto.

Under the auspices of the Committee on Insurance of the New York Chamber of Commerce, arrangements are being perfected for a comprehensive investigation into all essential phases of the subject of social insurance, between this and the next meeting of the New York Legislature, with special regard to health insurance. Dr. J. F. Crowell, Executive Officer of the Chamber of Commerce, to whom communications may be addressed, will have charge of the inquiry.

MARRIAGES

Dr. Fred August Thysell and Miss Myrtle Graham, both of Rhinelander, on May 10, 1916.

DEATHS

Dr. Benjamin U. Jacob, 66, prominent in the medical profession in Waukesha since 1887, died May 28 following a protracted illness. He was born in Tuscarawas county, Ohio, and was educated in the public schools and graduated from the high school at New Philadelphia in 1867. In the fall of the same year he entered Mt. Union college, Alliance, Ohio, from which he graduated in 1871, receiving the A. B. degree. During his college life he taught at intervals, and after his graduation took up the study of analytical chemistry with the view of becoming an analytical chemist. In 1873 he engaged in the drug business at Lamont, near Chicago, in which he continued until 1879, when he entered the medical department of Northwestern university of Chicago. Upon graduating in 1881 he began the practice of the profession in Chicago, but two years later located at Port Washington, where he remained until he came to Waukesha.

Dr. Jacob, on July 27, 1871, married Miss Lucetta Hartshorn.

Dr. W. W. Reed, Jefferson, died on May 10 of a stroke of paralysis suffered on April 10th. Dr. Reed was born on a farm in Versailles, Ohio, February 8, 1825. His childhood days were spent on the farm and his early education acquired at the home school, after which he attended and graduated at the Academy at Versailles, then teaching school. He later studied at the College of Physicians and Surgeons, Keokuk, Iowa, from which institution he graduated. In October, 1849, he commenced the practice of his profession at Jefferson, which he continued until one year ago.

For twenty years he had been a member of the State Board of Charities, and he fathered the legislation that brought about the establishment of the present system of county asylums for the insane.

With a record of four years in the assembly, eight years in the state senate, mayor of Jefferson for twelve years, and county physician for thirty-six years, Dr. Reed, affectionately called the "grand old man of Jefferson County," is generally admitted to have had a most active and useful career.

He was a member of Jefferson County and the State Medical Societies.

REMOVALS

Dr. S. G. Meany, Crandon to East Troy.

Dr. C. E. Wintermute, Kilbourn to Saratoga, Cal.

Dr. Geo. L. Roos, Milwaukee to Kenosha.

Dr. W. F. Goggins, Tigerton to Wrightstown.

Dr. Sue Hebard, Mondovi to Chippewa Falls.

On the Presence of Ketones and Betahydroxybutyric Acid in the Urine of Normal Children. Veeder and Johnston (Amer. Jour. Dis. Children, 1916, 11, 291) examined the urine of twenty-one normal children varying in age from 2 months to 12 years. The children were all in bed and were given "standard metabolic diet." This diet contained fat, carbohydrate and protein in proper proportions. Small amounts of ketones (acetone and diacetic acid) and betahydroxybutyric acid were always found in the urines. The amount was small. The age, sex, and body weight of the child apparently had no effect on the amount. They say that the large quantities of "acetone bodies" in the urine in febrile conditions and on restricted diets is due to the increase of substances normally present, rather than to the appearance of abnormal substances.

BOOK REVIEWS

Elementary Bacteriology and Protozoölogy. For the use of Nurses. By Herbert Fox, M. D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. Second Edition, Revised and Enlarged. 12mo, 251 pages, with 68 engravings and 5 colored plates. Cloth, $1.75, net. Lea & Febiger, Philadelphia and New York, 1916.

The first edition of this work was reviewed at length in this Journal about two years ago. The second edition carries out the same principles as those found in the first, with the addition of more details regarding disinfection and transmission of infection, especially with reference to diseases spread by insects, and concerning which subject new discoveries have been made. All of which adds to its value as an up-to-date textbook on this subject.

The essentials of Bacteriology are presented in a concise and comprehensive form, incorporating the chief of the later developments in this field and in a form that will be found very interesting and helpful to the beginner to whom it is commended. C. V. N.

Pulmonary Tuberculosis. By Maurice Fishberg, M. D., Clinical Professor of Tuberculosis, University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases, New York. Octavo, 639 pages, with 91 engravings and 18 plates. Cloth, $5.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

There have been a number of text books both small and large written on Pulmonary Tuberculosis within the past few years. Some have treated of only a small section of the subject, others have attempted to cover the whole range of the subject. We have had occasion to look through most of those books. The fact that there have been such a large number, is clear evidence of the importance with which Pulmonary Tuberculosis is generally considered.

It would seem that another text book on the same old theme would be but a repetition of the same old story and might be but a rehashing of what is already at hand.

We say that this might with reason be advanced against the appearance of another book. But then, that would only reveal the fact that Dr. Fishberg's book had been laid aside with a sneer and had not even been accorded the courtesy of a superficial perusal.

We confess that we opened the book with a certain misgiving but closed it with a different feeling. We are of the opinion that the author has made a real contribution to this much-written, much-discussed subject. An insight into the author's point of view may be had by reading this quotation from the preface: "(1) The physician can, and should, do more than recognize phthisis in its earliest or pretuberculous stage and at once send him to a sanatorium. (2) That 'incipient' does not always mean *curable* tuberculosis, and conversely, that 'advanced' disease does not necessarily indicate a hopeless outlook. (3) That institutional treatment is not the only effective method of handling the phthisical patient. (4) If all tuberculous persons in this country would consent to hospitalization, the available institutions would hardly accommodate ten per cent of eligible patients. (5) Even those treated in sanatoriums must be cared for by their family physicians before admission and after discharge. (6) Careful home treatment is productive of practically the same immediate and ultimate results as institutional treatment, and is less costly to the patient and to the community."

The author makes a sharp distinction between *infection* and *disease*, or *tuberculosis* and *phthisis*.

We cannot go into detail of criticism in a brief review. We wish especially to commend the chapters on Phthisiogenesis, in which immunity is excellently discussed, Tuberculous Infection, and Specific Treatment to the attention of readers.

The book as a whole is excellent, well and concisely written, revealing a minute acquaintance with detail and a broad grasp of the problems affecting the tuberculous patient.

The illustrations are well made. Several colored plates help to make the text clearer. The book is singularly free from typographical errors, revealing the care which is everywhere evident in the preparation.

We can unreservedly and heartily recommend this book to the profession and congratulate the author who has done so well what he set out to do.

Candy Medication. By Bernard Fantus, M. D., Professor of Pharmacology and Therapeutics, University of Illinois. 73 pages. C. V. Mosby Co., St. Louis, 1915. Price, $1.00.

This is a brief formulary of sweetened tablets for use in treating small children. Many formulae are given with directions to the druggist for their preparation. It is of interest principally to the druggist who makes his own tablets and who is called upon to prepare medicines disguised as candy.

Diagnostic Methods. By Herbert Thomas Brooks, A. B., M. D., Professor of Pathology, University of Tennessee. 3rd edition, 92 pages, illustrated. C. V. Mosby Co., St. Louis, 1916. Price, $1.00.

Very brief directions for the making of the usual laboratory tests comprise the subject matter of this little book. It is little more than an outline, only the necessary directions being given, but as such is fairly complete, including such late tests as Noguchi's butyric acid test for globulin, the Nonne-Apelt protein test, the Lange colloidal gold test, the complement fixation test for gonorrhea and the luetin test.

Handbook of Infant Feeding. By Lawrence T. Royster, M. D. 142 pages, illustrated. C. V. Mosby Co., St. Louis, 1915. Price, $1.25.

The essentials of infant feeding, no more and no less, are contained in this little volume. For the general practitioner who is called upon in cases of difficult feeding, this book should be very useful, as it gives very concisely the desired information. Marasmus and infectious diarrhoea are considered in their relation to the babies' food.

Exercise in Education and Medicine. By R. Tait McKenzie, A. B., M. D., Professor of Physical Education, and Director of the Department, University of Pennsylvania. Octavo of 585 pages, with 478 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $4.00 net; Half Morocco, $5.50 net.

This interesting work, which has now reached its second edition, is addressed by its author "to students and practitioners of physical training; to teachers of the youth; to students of medicine and to its practitioners, with the purpose to give a comprehensive view of the space exercise should hold in a complete scheme of education and in the treatment of abnormal or diseased conditions."

The volume is divided into two parts, the first dealing with "Exercise in Education"; the second, "Exercise in Medicine." In the first part, after a few chapters on preliminary considerations, the various national systems of physical training and gymnastics are discussed and this is followed by chapters on physical education in different organizations or groups, as Y. M. C. A.s, Camps, Boy Scouts, etc., physical education in schools, colleges, universities, girls' schools and women's colleges, and in institutions for the blind and deaf and for mental and moral defectives.

In the second part are considered: The Application of Exercise to Pathologic Conditions, Massage and Vibration, Mechanical Means for Massage and Exercise, Flat-Foot and Club-Foot—Their Treatment by Exercise, The Cause and Treatment of Round Back, Stooped, and Uneven Shoulders, Scoliosis—Its Causes, Varieties, Diagnosis and Prognosis, The Treatment of Scoliosis, The Treatment of Abdominal Weakness and Hernia by Exercise, Treatment of Visceroptosis and Constipation, and Disorders of the Digestion, by Massage and Exercise. Treatment of Respiratory Diseases by Exercise and Forced Respiration, Exercise in Treatment of Diseases of the Circulation, Obesity; Its Causes and Treatment, Exercise in the Treatment of Nerve Pain and Exhaustion, Tic, Stammering, and Chorea, Infantile Paralysis from Anterior Poliomyelitis, Treatment of Locomotor Ataxia by Exercise.

The subject Dr. McKenzie presents is as old as the civilization of ancient Greece and yet it is new and interesting and important in its bearings on the problems of modern medicine. Dr. McKenzie handles his material in an orderly, clear manner and his book is thoroughly readable. The illustrations are very numerous and are splendidly chosen to demonstrate the descriptions given in the text.

The volume is one which will be of special value to all who are connected with school inspection or with educational institutions of any kind but it will also well repay a thoughtful reading by the general practitioner.

A. W. M.

Cancer of the Stomach. A Clinical Study of 921 Operatively and Pathologically Demonstrated Cases, by Frank Smithies, M. D., Gastro-enterologist to Augustana Hospital, Chicago. With a Chapter on the Surgical Treatment of Gastric Cancer, by Albert J. Ochsner, M. D., Professor of Clinical Surgery in the University of Illinois. Octavo of 522 pages with 106 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $5.50 net; Half Morocco, $7.00 net.

This is a very complete and thorough monograph on the subject of gastric cancer. It contains nothing essentially new on the subject but is a statistical study of 921 operatively and pathologically demonstrated cases of cancer of the stomach. The subject matter of the book consists of considerations of the etiology, morbid anatomy, symptomatology, subjective and objective, the results of the examination of the patient, laboratory findings, the examination of gastro-intestinal function by means of the X-ray, a practical and valuable chapter on the differential diagnosis of cancer of the stomach and the chapters upon surgical and non-surgical treatment.

Many of the newer methods for the examination of gastro-intestinal function are given in considerable detail and the percentage of positive findings in the various tests during the examination of these 921 cases. Some of these newer tests are Gluzinski method of determining acidity, and Edestin test of Fuld and Levison, the Formol index and Glycyltryptophan test, the Wolff-Junghans tests for soluble albumen, the Wohlgemuth's method of determining diastase in the stools. The chapter on X-ray examination is well illustrated by many excellent plates.

As a thorough study of 921 cases of cancer of the stomach, this monograph is of considerable value. This, however, is all the book claims to be; really a compilation of the findings of an individual investigator.

Diagnostic and Therapeutic Technic. A Manual of practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, M. D., Clinical Professor of Surgery, New York Polyclinic. Second edition, thoroughly revised. Octavo of 834 pages, with 860 illustrations. Cloth, $5.00, net; Half Morocco, $6.50, net. W. B. Saunders Company, Philadelphia and London, 1915.

In this useful volume Dr. Morrow presents an immense amount of practical and necessary information; knowing what to do is oftentimes far simpler than knowing how to do it. Dr. Morrow has set himself the task of giving each procedure in detail, leaving nothing to the readers imagination and he has carried out this task thoroughly and conscientiously, making use of a large number of illustrations in doing so. There are 860 illustrations in the volume of 811 pages; most of them are original and all of them really illustrate.

A list of the chapter headings will give an idea of the scope of the work when it is remembered that under each of these headings will be found detailed descriptions of the procedures in the earlier chapters and in the latter ones explicit directions for putting into use the most approved forms of diagnostic and therapeutic technic:

The Administration of General Anesthetics, Local Anesthesia, Sphygmomanometry, Transfusion of Blood, Infusions of Physiological Salt Solution, Acupuncture, Venesection, Scarification, Subcutaneous Drainage for Edema, Cupping, Leeching, Hypodermic and Intramuscular Injection of Drugs, Administration of Salvarsan and

Neosalvarsan, Administration of Diphtheria Antitoxin, Vaccination, the Treatment of Neuralgia by Injections, Bier's Hyperemic Treatment, the Diagnosis and Treatment of Fistulous Tracts by Means of Bismuth Paste, Collection and Preservation of Pathological Material, Exploratory Punctures, Aspirations, the Nose and Accessory Sinuses, the Ear, the Larynx and Trachea, the Esophagus, the Stomach, the Colon and Rectum, the Urethra and Prostate, the Bladder, the Kidneys and Ureters, the Female Generative Organs.

A. W. M.

Surgical Operations with Local Anaesthesia. Second edition, by Arthur E. Hertzler, M. D., Surgeon to the Halstead Hospital, Kansas and General Hospital of Kansas City, Mo. 312 pages, fully illustrated. Surgery Publishing Co., 92 Williams St., New York, 1916.

This book covers the subject of local anaesthesia very thoroughly and completely. The individual operations which can be performed under local anaesthesia are discussed, the necessary anatomy outlined, particularly the nervous supply to the region, the anaesthesia of choice, the method of nerve blocking and the different steps in the operation.

This book contains what so many books lack, description of procedures given so clearly that the surgeon in search of information gets exactly those details which are so necessary for the successful worker under local anaesthesia. Before undertaking an operation of any severity under local, the surgeon would do well to consult Hertzler, and there he will find an answer to exactly those questions he would ask the experienced surgeon were he present personally. The keynote of this book from first to last is practicability and usefulness.

A Manual of Hygiene and Sanitation. By Seneca Egbert, M. D., Professor of Hygiene and Dean of the Medico-Chirurgical College, Philadelphia. New (6th) edition, thoroughly revised. 12mo, 525 pages, with 141 figures and 5 plates. Cloth, $2.25, net. Lea & Febiger, Philadelphia and New York, 1916.

This little manual is a very complete exposition of a most important subject. The author has divided the volume into sixteen chapters among which are Water, Food, Ventilation and Heating, School Hygiene, Quarantine, Removal and Disposal of Sewage, Military Hygiene, Vital Statistics, etc.

The text is easy to read, the style clear and pleasing. Numerous illustrations assist in elucidating the text. We have enjoyed reading the book and have no doubt that others will find it both entertaining and profitable.

A Treatise on the Principles and Practice of Medicine. By Arthur R. Edwards, M. D., Professor of the Principles and Practice of Medicine and Clinical Medicine and Dean of the Northwestern University Medical School, Chicago. New (third) edition, thoroughly revised. Octavo, 1022 pages, with 80 engravings and 23 full-page plates in colors and monochrome. Cloth, $6.00, net. Lea & Febiger, Philadelphia and New York, 1916.

This text book needs no extended comment. It is well and favorably known to the Profession.

In this third edition the author has rewritten much of the text, has added new matter and yet decreased the actual size of the book. For this we are thankful. Although not ill or puny we do get exhausted reading from a ten pound book when our library does not possess a fancy book stand.

Among new material may be mentioned, chapters on ictero-anemia, the ductless glands, X-Ray findings, erythremia, high calory-feeding in typhoid with a table of food values (this we are personally most pleased to note), sporotrichosis, blastomycosis, trichinosis, hookworm disease, pellegra, etc. New matter concerning vaccines and sera has also been added in an attempt to place the book as nearly up-to-date as any text book can be.

The therapeutics can be recommended. Dr. Edwards is alive to all the real advances and has the mental balance which keeps his book sane.

We note with exceeding joy that certain very "modern" therapeutic measures, widely advertised, among which are the wonderful (?) phylacogens, are not even given mention by name. To be ignored absolutely is the unkindest cut of all. Dr. Edwards is to be sincerely thanked for keeping his book strictly scientific and we have no hesitancy in recommending this as a reliable text book in spite of certain statements here and there with which we most emphatically disagree.

Two Cases of Paralysis of the Cervical Sympathetic Nerve with Ocular Symptoms After Injuries Sustained in the War. Russeff, Kosta, (From the eye-clinic of Prof. R. Greeff in the Charité at Berlin. Zeit. f. Aug., 33, p. 291), reports after a review of the relation between the physiological experiments and clinical observations, two cases.

The first showed after a lesion of the brachial plexus at its exit on the left side of the neck Horner's complex of symptoms: ptosis, miosis, and enophthalmus, on the right side, paralysis of the cervical sympathetic nerve and of the recurrence of the left side.

Case 2: Injury of the right shoulder joint without consequences, Horner's complex of symptoms from pressure and irritation by a hematoma on the cervical spinal cord with transitory compression and circumscribed cervical myelitis, lesion of the left brachial plexus at its exit.

After a detailed discussion, R. reaches the following conclusions: Horner's complex of symptoms occurs partly in form of irritation, partly in form of paralysis, in consequence of compression or lesion of the cervical sympathetic nerve or of its central paths. The form depends on the duration of the acting cause and the time elapsed. The complex need not always be present in traumatic lesions of the brachial plexus. It is rather in near relation to the place of injury and depends upon whether circumscribed myelitis develops or not. Hence early and late symptoms must be distinguished. Twelve cases from literature are tabellated. C. Z.

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ORIGINAL ARTICLES

THE HARRISON LAW AND ITS RELATION TO DRUG HABITUES.*

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The drugs coming under the provisions of the Harrison Law are opium and cocoa leaves and their derivatives.

Since these drugs have come to be of such great importance, not only from a medical standpoint, but from moral, economic and commercial standpoints as well, it appears that a brief review of their histories would not be amiss.

Cocoa leaves, from which cocaine is obtained, are produced principally in the mountain regions of Bolivia and Peru. The early Spanish explorers observed that the natives who engaged in arduous labor chewed the leaves mixed with lime, that they appeared to be invigorated thereby, and did not, when using them, require the usual amount of food.

The alkaloid cocaine was first isolated in 1885 and is contained in the cocoa leaves in the proportion of about 10 ounces to the hundred pounds of leaves. It is estimated that in the United States cocaine is used to the extent of 120,000 ounces annually, and that the importation of opium reaches a total of 450,000 pounds for the same period, 10 or 15 per cent. of which amounts would adequately supply all the legitimate uses of the drugs.

Opium has been known from early ages. The Greeks are, no doubt, entitled to the credit of its discovery, and its lethean qualities were extolled by the Greek and Latin poets.

It was known to Hippocrates, and he speaks favorably of its medicinal properties.

Opium was first produced in commercial quantities in Asia Minor, and was carried as an article of commerce to Persia, India, China, and the islands of the Indian Archipelago by the Arab traders. It, however, did not attain a position of any importance till the rise of Islamism; but, as the Mohammedan religion spread through the Orient, the opium problem came to be known, not only among the people who embraced that faith, but to their neighbors of other religions as well. This state of affairs no doubt arose owing to the fact that the use of alcoholic beverages was forbidden the Mohammedans while the use of opium was rather encouraged.

The cultivation of the poppy and the manufacture and use of opium steadily increased till in 1900, three-fourths of a million acres of land in the valley of the Ganges was devoted to poppy culture, and 67,000 chests, each containing 150 pounds of opium, were exported from India, 52,000 chests of which were sent to China.

In this same year, 1900, in some of the Chinese provinces, one-half of the land served no other purpose than that of producing poppies, and over 50% of the population were addicted to the use of opium.

On account of the decreased acreage of grain and lessened ability of the people to perform manual labor, the food supply was often short, numerous famines resulted, and hundreds of thousands of people died of starvation.

These are a few of the grosser evils that can be lain directly to the door of the alluring drug, opium.

There has been a popular delusion, which still exists to some extent, to the effect that opium does not have any deleterious effect upon the Oriental races, but there is, in fact, no basis whatever for the belief or any reason to believe that these people are differently affected by it than are Caucasians. This belief has been fostered through selfish motives, by certain influential persons engaged in the opium trade, and through the report of an Indian Opium Commission which, in 1895, reported after

*Read at 69th meeting of the State Medical Society of Wisconsin, Oct. 6-8, 1915.

an investigation, "that the Indians and Chinese appeared to be rather benefited than otherwise by the use of opium, in that its use rendered their miserable existence more tolerable."

This idea did not gain favor in Great Britain and in 1907 an agreement, which went into effect in January, 1908, was entered into between Great Britain and China to the effect that the amount of opium exported to China should be reduced by 1 10 annually till it ceased entirely, and that the production of opium in China should be reduced in a like ratio.

In 1908 the United States Congress passed a law prohibiting the importation of opium into the Philippines except for medicinal purposes.

Congress brought the matter of international traffic in narcotic and habit-forming drugs to an issue by arranging a conference of thirteen nations which met at Shanghai in 1909, and at The Hague in 1911. In 1912 an agreement was signed by these same nations laying out a program for the control of the national and international traffic in such drugs.

To carry out America's part of the agreement, three laws were passed by Congress:

The first, bill No. 1966, prohibiting the importation of opium for other than medicinal purposes.

The second, bill No. 1967, prohibiting the importation of smoking opium or its manufacture except under regulation which made its manufacture prohibitive.

The third bill, known as the Harrison Law, was enacted Dec. 13, 1914, to become effective March 1, 1915. At the time of its passage it received a great deal of newspaper attention, and it was confidently predicted that the community would be in great danger when the drug habitués should no longer be able to get the drug of their addiction, that there would be violence, robberies, murders, and suicides in great numbers to the extent almost such as would be a national calamity. But the time for the enforcement of the law came and passed and there was not a ripple on the placid surface of the even current of public events; there were no violence, no robberies, no murders, and but few, if any, suicides. There were many more admissions of this class of persons to institutions, public and private, which treated such cases, it is true, but their capacities were not over-taxed.

It was estimated that there were from one to four million, according to the estimater, drug habitués in the country. There were, in all probability, not to exceed 150,000. The public had become hysterical and everything had been exaggerated.

The Harrison Law, as you all know, is at first glance rather complicated, but upon closer study, decidedly simple in its provisions.

The provisions of the law are briefly, a system of registration for those who, in any way, handle the drugs which come under its provisions, and for recording the importation and movement of them after their importation or manufacture; and for the preservation of such records for a period of two years subject to inspection by the proper authorities.

Section six of the law weakens it and is pernicious in its provisions. It is a concession on the face of it to the patent medicine manufacturer. It reads as follows: The provisions of this Act shall not be construed to apply to the sale, distribution, giving away, dispensing or possession of preparations and remedies which do not contain more than 2 grains of opium, or more than one-fourth grain of morphine, or more than one-eighth grain of heroin, or more than one grain codein, or any salt, or derivative of any of them in one fluid ounce, or if a solid or semi-solid preparation, in one avoirdupois ounce. Then in the same section follows a provision which at first glance improves the situation, but which upon closer study, really entrenches the proprietary manufacturers more securely. It is as follows: Such remedies and preparations which are sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of the Act. This provision establishes these preparations as medicines or remedies and lends a degree of respectability to the trafficker. The quantities of narcotics thus exempted from the provision of the law are enough to establish the habit in susceptible persons and enough to be injurious to children.

It lets paregoric and our old friends, Shilows' Consumption Cure and Winslow's Soothing Syrup, each containing but one-fourth of a grain of morphine to the ounce, and Chamberlains' Cholera Cure, containing one and ninety-nine one hundredths grain of opium to the ounce, with many other patent medicines which are on the market now and many more which will be in the market, slip comfortably through the barrier and establish themselves in a safe position ready for business.

Section eight stops some of the leaks which might otherwise occur. It provides that it shall be unlawful for any person not registered under the provisions of the law to have in his possession or under his control any of the aforesaid drugs; and such possession or control shall be presumptive evidence of a violation of this section and also of section one of this Act.

Provided that this section shall not apply to any employe of any registered person, or to a nurse under the supervision of a physician, dentist or veterinary surgeon registered under the Act having possession or control by virtue of his employment or occupation, and not on his own account; or the possession of any of the aforesaid drugs which has or have been, prescribed in good faith by a registered person having a right to prescribe.

Provided further, That it shall not be necessary to negative any of the aforesaid exemptions in any complaint, information, indictment, or other writ or proceeding laid or brought under this Act; and the burden of proof of any such exemption shall be upon the defendant.

This section will serve to reach such persons as have lain in stocks of drugs before the law went into effect and those who may have in their possession smuggled drugs or drugs obtained through other fraudulent methods. It also provides that drugs in the possession of persons who have obtained them upon a prescription must have been prescribed in good faith. This provision should effectively suppress the irregular physician who might be tempted to gain a livelihood by prescribing habit-forming drugs for those who might ask him to do so for a consideration.

With a view of arriving at some conclusion relative to the efficiency of the law, inquiries have been made of physicians, retail druggists, jobbing and manufacturing pharmacists, importers and of institutions devoted to the care of mental and nervous diseases and drug habituations, and the results are as follows:

Most physicians have a few old and feeble habitués in whose cases it would be dangerous to discontinue the drugs entirely. In many of these cases, however, the amount used has been appreciably reduced.

Another class of cases also receive narcotics on prescription. These are such as are afflicted with painful and incurable diseases.

Inquiries of a number of retail druggists in Wisconsin bring forth the fact that only a sparing amount of these drugs, usually morphine and heroin, are being prescribed for drug habitués who are old, enfeebled, or suffering from chronic painful diseases. The prescribing and selling of narcotic drugs under these conditions is not only legitimate, but humane.

Five manufacturing pharmacists and jobbers were asked to compare the amount of opium, morphine, cocaine and heroin sold by them from March 1, 1915 to Sept. 1, 1915, with the amount sold during a similar period in 1914, and the amount sold from Dec. 1, 1914 to March 1, 1915, as compared with the amount sold during these months in the year previous.

The amount sold in 1915 was only from 15 to 25% of that sold during the same period in 1914; the greater reduction being in the case of morphine, and the lesser in that of cocaine.

The amount sold from Dec. 1, 1914 to March 1, 1915, was noticeably greater than that sold during these months a year previous.

Seven manufacturing pharmacists and importers were asked the same question. Two did not reply. One answered in such an evasive manner that no information was given. The remaining four replied at length, stating uniformly that there had been a marked reduction in the quantity of all of these drugs sold, their sale from March 1, 1915 to Sept. 1, 1915, being only from 5 to 20% of the amount sold during the same period of 1914.

With this group of firms there was the greatest reduction in the sale of morphine, cocaine and heroin, the decreased amount of heroin being accounted for largely by the lesser amount of the drug used in the semi-proprietary cough mixtures by the people to whom they sell.

These four houses expressed the opinion that the law was desirable, was efficient, and would accomplish the purpose for which it was enacted.

Inquiries were made of twelve institutions, public and private, which care for mental and nervous diseases. Four of these institutions stated that they did not treat drug addicts. The information given by the other eight is given in the summary of the answers to the following questions:

(1) How many opium, morphine, heroin, codein and cocaine habitués were admitted to your institution from March 1, 1915 to Sept. 1, 1915?

(2) How does this number compare with the number for the same period in 1914?

(3) During the period from March 1, 1915 to Sept. 1, 1915, has there been admitted more than the usual number of any of the following classes: physicians, dentists, pharmacists, trained nurses, and veterinary surgeons?

(4) Have you been led to think that a number of drug users may have substituted alcoholics for narcotic drugs?

For those using opium or its preparations, the total number received was 421, of whom 253 were men, and 168 women. There were 10 who used cocaine, 8 men and 2 women.

In reply to the second question it was stated that the number of admissions from March 1, 1915 to September of the same year had been many times greater than for the same period in 1914. On closer calculation it appears that this number has been about twelve times as great.

In reply to question three it was ascertained that there had been 4 physicians, no dentists, 2 pharmacists, 3 trained nurses, and 1 veterinary surgeon admitted, about the normal number for that period.

In reply to question four, a number stated that they had known of one or two instances in which an attempt had been made to substitute alcoholics for drugs, but with poor success.

From the 1st of Feb., 1915 to the 1st of Sept., 1915, 16 drug habitués were admitted to The Northern Hospital for the Insane at Winnebago. There are usually admitted two or three per annum.

Three came voluntarily in February in anticipation of the enforcement of the law.

Of those admitted, 13 were women, and 3 were men. They varied in ages from 23 to 75 years.

All of these patients took morphine with the exception of two, mother and daughter, who had taken Chamberlains' Cholera Cure at the rate of a bottle each per day for years.

The weekly quantity of morphine taken varied from one-half dram to two drams, and the great majority of them took it by mouth.

As to the origin of its use, eight stated that it had been given them by physicians for pain or insomnia. In six the reasons given for its use were vague, but it had probably been self-administered; and the two who took Chamberlains' Cholera Cure, the mother stated that it had been prescribed for her by a druggist twenty years ago, and that she herself had prescribed it for the daughter ten years ago.

These patients had taken the drugs to which they were habituated for periods of from six to thirty years. None of them took heroin or cocaine.

These statements upon their face appear to be rather encouraging, both as to the number of drug habitués who have submitted themselves to treatment, and as to the amount of drugs sold; but when it is taken into consideration that this number of persons is from a population of 800,000 tributary to the hospital, we have only one drug addict to 50,000 inhabitants, a proportion which every physician knows is absurd.

From the information received from drug dealers it would appear that the quantity of narcotics sold has been greatly reduced, but the report of the Department of Commerce does not show that there has been any great falling off in their importation. According to this report of opium, there was imported in 1910, 449,239 pounds; 1911, 629,842 pounds; 1912, 399,837 pounds; 1913, 508,433 pounds; 1914, 455,200 pounds; and for the first seven months of 1915, 284,715 pounds, 122,346 pounds of which was imported from April 1st to June 30th.

The usual importation of cocoa leaves is something over 1,200,000 pounds annually. From Jan. 1st to March 31, 1915, it amounted to 111,501 pounds, and from April 1st to June 30th, 326,140 pounds. These figures would indicate that the great majority of drug habitués are receiving their accustomed supply.

Upon physicians rests the main responsibility of the enforcement of the law, at least they will have to supply the moral force in its observance and responsibility for advising their patients relative to the dangers involved in the use of narcotic drugs.

A common complaint made by drug habitués is that they were given a narcotic by a physician during a severe illness, that the prescription had been filled at a drug store and re-filled many times on their own initiative till finally the habit was formed.

In this connection it is well to call attention to the fact that the Harrison Law does not permit the re-filling of prescriptions. There must be a separate order for each lot of narcotic drugs dispensed. The order must be written and it is questionable if a druggist does not lay himself liable, if he fills

a verbal order, especially a telephoned one with the intention of getting the written order later.

Among the great number of physicians, especially in the cities, there will be a few who will violate the law by giving prescriptions for a money consideration to drug habitués, but they are of the same type as a professional abortionist and will soon be eliminated.

Treatment. Habitués of opium and morphine are treated with satisfactory primary results, but there is a great tendency to relapse, hence the necessity of removing the opportunity for them to procure drugs.

Persons over 60 years of age, who have been long addicted to drugs, do not stand their withdrawal well, and the best method with them is to reduce the dose as much as safety will permit and continue its use at that point.

The method we have pursued in treatment is to put the patient to bed, no matter how strong he is, clean out bowels thoroughly and keep them regular, withdraw the drug by rapid reduction till it has been entirely withdrawn at the end of a week. Give warm full baths to control the pain, and administer seven grains veronal, five grains luminol, or fifteen grains of trional for a few evenings, together with a warm bath to induce sleep. If there is evidence of cardiac weakness, strychnine is administered.

Bitter tonics are given to improve the appetite. Easily digested nutritious food is given frequently and in as large quantities as the patient can take. At the end of a week or ten days the drug has been usually entirely withdrawn and the patient is comparatively comfortable. At the end of three months he is again practically as well as he ever was, and his remaining well depends on the drug being kept away from him. The prospects of his permanent recovery are better than in the case of the chronic alcoholic on account of the social element in alcoholism and the ease with which alcoholics may be procured.

Our success with cocaine habitués has not been satisfactory. The drug can be promptly withdrawn and the patient improves rapidly from a physical standpoint, but his moral fibre appears to have been destroyed and he relapses at the first opportunity.

We have had no heroin addicts under treatment. Its use appears to be confined entirely to the large cities.

The drug habitué is a type, and the use of a drug merely an incident in the life of a neuropath, a psychopath, or a feeble-minded person.

Noticeable traits of all drug users are their intolerance of pain, either physical or mental; they lack the normal resistance for disagreeable sensations, and once having experienced the soothing effect of a narcotic, the next time they suffer physical pain or mental anguish, they are quick to rush for relief to the drug which afforded them forgetfulness and comfort on other occasions. This is repeated a few times and shortly the non-resistant individual finds himself the unresisting, worshipping slave of the drug which he had considered his servant.

The normal individual resists for a long time the tendency to habituation, but may become habituated by long use, owing to the fact that the drug eventually produces a condition in his organism analogous to the condition which existed in the pathological habitué when the first dose was administered.

Stigmata of degeneracy are evident in many of these people, and they are frequently of immoral or criminal tendencies, dishonest, self-centered, and have no regard for the rights and feelings of others, or for the conventions of society.

It is interesting to observe the evidences of feeble-mindedness which manifest themselves after the withdrawal of drugs; before these signs had been obscured by what had been considered the effect of the narcotic, but when this has been cleared up their reasoning processes and insight is of a decidedly juvenile type.

A matter of some importance from an ethical standpoint is the tendency which physicians and nurses, who are addicted to the use of morphine, have to administer the drug to the patients under their care. Not infrequently a physician of this type prescribes morphine for a large percentage of his patients. The reason for this is that it is the easiest way to relieve a patient with the least trouble to himself. His experience with the drug has taught him that the patient will be comfortable, for a time at least, and when he is again uncomfortable there will be more morphine. Further, he is of a type and his ethical sense has not been developed and is incapable of development.

There are many instances of nurses of this type who have had charge of patients, administering morphine to them on their own responsibility. The reasons for their so doing are the same as maintains in the case of the physician habitué.

The conclusions drawn from the facts presented are:

That the number of drug habitués in this country has been greatly exaggerated.

That the amount of narcotic drugs imported into the country is out of all proportion to the amount legitimately used in the practice of medicine. Probably 10 or 15% of the quantity would supply this need.

That the main source of supply to habitués has been from the regular drug trade.

That morally, it is the duty of physicians, as well as of druggists, to assist in the enforcement of the law.

That the narcotic question is one potential for great evil, in evidence of which reference is made to the ravages of opium in the Orient, but that it is of slight importance compared with other Medico-sociological problems confronting us.

That the Harrison Law is effective in tracing the supply and disposition of the drugs coming under its provisions; but it is the minimum requirement and needs to be supplemented by State legislation in order to control the improper use of these drugs.

That, so far as can be ascertained, the Harrison Law, as yet, has interfered but little with the supply of narcotic drugs to habitués, has not reduced their number to any considerable extent, and has not lessened the quantity of such drugs imported.

DISCUSSION.

Dr. Neil Andrews, Oshkosh: I have read of a fish which has the art, when pursued by its enemies, of projecting into the surrounding seas an inky-like fluid, which confuses and harasses its enemies, and thus enables it to escape. They call it the stink fish. The opponents of the Harrison Act are much like this fish. By the projection of matter foreign to the law they have sought to confuse the medical profession and the laymen with regard to its purpose and issue.

I agree with our essayist that the law is decidedly simple in its provisions. Its demands are reasonable. Its purpose is ascertainable. It aims at three things: first, publicity in the use of habit-forming drugs; second, the restriction of the use of these drugs to legitimate channels; and third, the prosecution of persons using them for illegitimate purposes. It is to be admitted that some of these provisions for the achievement of this purpose appear vague and capable of two or more interpretations. As far as our profession is concerned, however, opinions as to interpretations are not essential, if we follow this rule: Prescribe none of these drugs without appending the name and address of the patient, together with our registered number. The essayist has objected to Sec. 16, which allows certain amounts of these drugs to be used without restriction, the restriction not preventing the putting up of a 6 oz. bottle of water with a grain and one-half of morphin, and selling it. Such preparations as Chamberlain's and Piso's cures, and a number of others, have unlimited and unrestricted sale. This is absolutely wrong, and to this extent vitiates the law. It is a compromise with interests which have no moral regard for drug habitues: it is a compromise with persons who have absolutely no sympathy with the purpose of the Harrison Act: it is a compromise with wrong. I believe it to be the duty of our profession to register at every such gathering as this its repugnance to this compromise, and to demand of their respective congressmen its withdrawal. Not an infinitesimal fraction of any of these drugs should be permitted to be sold to anybody without a prescription for and registration of the same. For the sale of habit-forming drugs there should be exemption for no one; there should be publicity for all.

While it is rather early to quote statistics, the fact remains, the marked increase in habitues in our sanitoria and hospitals proves the efficacy of the law. Publicity and the restriction of the sale is a step forward in the redemption of many individuals from the thralldom of body and soul and mind to enervating drugs, and in the prevention of such slavery to thousands of others.

The Harrison Act, even with its unworthy and compromising Section 6, is an advance over preceding legislation. It is up to us, as the medical profession, to stand behind its spirit, and to make possible proper legislation, both state and national, that will complete this cycle of legislation covering habit-forming drugs, and bring to pass the era when all illegal dope sellers will be found in the penitentiary, and the dope field will have become a peril of the past.

Dr. Sherman, in closing, said: There is one provision of the Harrison law that certain drugs, and preparations must be prescribed and sold in good faith. Now that provision, perhaps, allows for a wide interpretation, and what one man might consider good faith would not be considered good faith by another man. It would appear that, in being so vague, this really opens quite a wide field for the sale of these drugs. Only a few days ago, in one of the Chicago papers, I noticed that a physician there had been arrested by the United States authorities for prescribing morphin. It seems that he had prescribed for 600 different people in one month. But he said that he was prescribing it in good faith, and he had kept his records, and prescribed it as the law provides. And I noticed a few days afterwards that he was released, as he had not violated the law.

THE HARRISON NARCOTIC LAW.*

BY MR. W. N. WELLS,
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The Act of Congress of December 17, 1914, generally known as the Harrison Narcotic Law, represents the first decided step taken by the United States Government to minimize the appalling evil which had for years been constantly increasing due to the consumption of habit-forming drugs.

The framers of our constitution, zealously guarding the rights of the several states from encroachments by the Federal Government, vested with Congress none of the ordinary police powers requisite to regulating a traffic of this class within the several states, but fortunately the Supreme Court of the United States at an early date in the country's history affirmed the right of Congress to provide for the levy and collection of all classes of indirect and excise taxes throughout the United States and to enact such legislation as might be necessary to secure an efficient enforcement of such laws. Therefore, while it is a matter of common knowledge that the incentive back of the members of Congress in the enactment of the Harrison law was one of humanitarianism, and that the object of such legislation was to save the people of this country from the manifest evils and sufferings which result from the traffic in narcotic drugs, so far as the law itself is concerned and so far as officials of the Internal Revenue Service are concerned, it is, in common with all the other laws entrusted to the administration of the Bureau of Internal Revenue, simply a United States taxation measure. However, it might be well to state in passing that the special tax of $1.00 per annum imposed by this law upon dealers and distributors of narcotic drugs is barely sufficient to reimburse the Government for the costs incurred in its enforcement.

It is presumed that the information particularly desired by the members of your association is a summary of the provisions of the Harrison Act and of the regulations adopted for the enforcement of the same.

The law itself outlines only in the most general terms the ideas of Congress as to the necessary restrictions in the handling of this traffic, but contains the provision common to all internal revenue enactments, vesting in the Commissioner of Internal Revenue, by and with the consent and approval of the Secretary of the Treasury, power to adopt such regulations as he may deem necessary for the efficient enforcement of this law. The courts of the United States have repeatedly affirmed the fact that regulations so adopted in accordance with authority delegated by Congress become of full effect as a part of the law itself and must be complied with as well as if written into the body of the law by direct enactment of Congress. Therefore our office finds, and parties registered under the provisions of this law find, that the larger portion of the rules laid down for their guidance consists of regulations adopted in compliance with the provisions of law rather than being written into the law itself.

The Act provides that every person, firm or corporation who produces, imports, manufactures, compounds, deals in, dispenses, sells, distributes, or gives away any of the drugs covered by the definition contained in such law shall be subject to a special tax at the rate of $1.00 per year, and makes it a criminal offense for any person to so engage in these professions or occupations without having previously registered in the office of the Collector of Internal Revenue and paid the tax as required by law. The only excepting provisions in the law to this general definition are those which exempt from the operation of the law officers of the United States Government, officers of State, County, City or other municipality, legitimately engaged in the performance of their duties in the operations of hospitals, educational or other similar institutions where such drugs are required for public purposes, also a registered pharmacist dispensing narcotics in the employ of another is not required to register but the owner of the business is required to secure registration and the registration so granted covers the dispensations made by his employes. However, trained nurses are not permitted to register under the provisions of this law but are permitted to dispense drugs under the direction and in accordance with the instructions of properly registered physicians and to have in their possession narcotic drugs so furnished to them by the physician in charge of the case.

At the time a physician or other person subject

*Read before the Dane County Medical Society, Madison, Wis., May 10, 1916.

to registration under the provisions of this law applies for the same he is required to make an inventory of all narcotic drugs in his possession, have the same verified by oath and to keep the same in his possession as a record to be used by an inspecting official in ascertaining his accountability for narcotic drugs. This inventory, taken in connection with the quantity of narcotic drugs purchased by a registered person, as shown by the duplicate order forms in his possession, constitute the accountability of such person and for these drugs the inspecting official will require him to account. Heretofore this inventory has been the only one required by the Department to be taken and no copy thereof has been required to be filed in the office of the Collector of Internal Revenue. However, under date of May 2, 1916, the Commissioner of Internal Revenue has promulgated Treasury Decision 2327 which provides that hereafter every person subject to registration under this law at the time of applying for the original registration and annually thereafter when applying for renewal of the same shall make an inventory of all narcotic drugs in his, her or their possession and that such inventory shall be made in duplicate and that one copy thereof shall be forwarded to the Collector of Internal Revenue with the application for registration and the Collector is prohibited from granting a registration to any party unless this provision is complied with. I desire particularly to impress this fact upon the physicians here assembled, as during the month of June it will be necessary for your registrations to be renewed for the year commencing July 1st, 1916, and at that time it will be necessary to forward to the office of the Collector of Internal Revenue an inventory of all narcotic drugs in your possession, the same being properly sworn to before a notary public or other office authorized to administer oaths, and failure to comply with this regulation will result in the Collector refusing a renewal of the registration until such inventory is furnished and a compliance with the same at the time your application is made will save both yourself and the office unnecessary correspondence and annoyance.

Under the general special tax laws of the United states which also govern in the enforcement of the Act under discussion, every change in membership of a firm paying special tax involves a new liability and under this law every place of business of a registered taxpayer involves a new liability to payment of tax and if a person is engaged in two or more businesses or professions special tax is to be paid on each, for instance, to illustrate, John Doe and Richard Roe are practicing physicians and each registered in his individual capacity. A partnership is formed constitnting the firm of Doe & Roe, a separate person in law from either, and the said firm desires to carry their narcotics in the partnership name and to write prescriptions in the partnership name, a new registration must be secured for the firm and the narcotic drugs held by the individuals must be transferred to the partnership by proper official order forms that the individual accounts may be balanced, and in this case all narcotics thereafter purchased would be in the firm name and prescriptions written would be written in the firm name followed by the registry number assigned to the partnership and showing below the firm name the signature of the member of the firm who actually wrote the prescription. However, there is nothing in the law which would prevent these two individuals retaining their individual registries if they so desired, and writing prescriptions in their individual capacity, but in case this is done the narcotic accounts of each must be kept separate and distinct and no narcotic prescriptions can be written in the partnership name.

If John Brown, a practicing physician, also operates a drug store, he is subject to registration both as a physician and as a druggist and narcotics transferred by him from his stock held as a druggist to be dispensed by him as a physician must be secured upon regularly executed order forms in the same manner as if the drugs were being purchased from another person. Likewise, if John Brown operates a hospital in addition to having an office at another point where narcotic drugs are kept for the purpose of dispensation and distribution, the hospital will require a separate registration providing a stock of narcotic drugs is kept at such place for the purpose of being distributed, dispensed or administered.

The members of the field force engaged in the enforcement of this law have advised me that in frequent instances they have found a lack of knowledge on the part of physicians as to the requirement governing the proper execution and signature of narcotic prescriptions. Every prescription written by a registered practitioner containing narcotic drugs in any amount, it matters not how small, comes within the purview of this act and must be

written in accordance with the regulations adopted. Said prescriptions must contain the name and the address, and by this I mean the house number in cases where street numbers are in vogue, of the party for whom the prescription is written; it must be signed by the physician in his ordinary business signature, for instance, John C. Johnson, in case that is his ordinary way of signing his name, and this name must be followed by the official registration number assigned to him by the Collector of Internal Revenue. It has been found that in some instances the prescriptions are signed only by the initials of the prescribing practitioner, which is not allowable and a druggist is not permitted to fill a prescription so signed. It has been found in other instances that physicians have used rubber stamps for the purpose of signing these prescriptions. This is not allowable as a rubber stamp does not constitute a legal signature and the same might be used by an unauthorized person to secure narcotics for illegal use, and no druggist is permitted under the law to fill a prescription so executed.

A question which is frequently asked our office by both practitioners and by the unfortunate addicts of the drug habit, is as to whether or not a provision is made by law which will enable a physician to prescribe drugs needed by such parties. In reply to this enquiry I would advise that under date of May 11, 1915, the Commissioner of Internal Revenue promulgated Treasury Decision 2200 covering this point and every registered practitioner in this district has been supplied with a copy thereof. It was doubtless the aim of the Commissioner in the promulgation of this decision to adopt rules by which physicians engaged in the legitimate practice of their profession could prescribe for addicts such quantities of narcotic drugs as might be necessary to maintain their lives and to minimize their suffering without opening the door to unscrupulous physicians to engage in the wholesale business of furnishing the prohibited drugs to addicts. After laying down a number of general rules and definitions relative to different provisions of this law the decision concludes with the following paragraph which really embraces the essential points in this question:

"Therefore where a physician, dentist, or veterinarian prescribes any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict or habitué to effect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veterinary surgeon should indicate on the prescription the purpose for which the unusual quantity of the drug so prescribed is to be used. In cases of treatment of addicts these prescriptions should show the good faith of the physician in the legitimate practice of his profession by a decreasing dosage or reduction of the quantity prescribed from time to time, while, on the other hand, in cases of chronic or incurable diseases such prescriptions might show an ascending dosage or increased quantity. Registered dealers filling such prescriptions should assure themselves that the drugs are prescribed in good faith for the purpose indicated thereon, and, if there is reason to suspect that the prescriptions are written for the purpose of evading the intentions of the law, such dealers should refuse to fill same."

It will be observed from the reading of the foregoing that the test to be applied in determining whether or not these prescriptions are written in good faith is the point that each of such prescriptions must show on the face thereof if given for the purpose of effecting a cure that the decreasing dosage is such that it will accomplish the aim desired, while in cases of chronic and incurable diseases if the prescription itself shows that it is given for treatment of a case of that class an increase in dosage is permissible.

The field men engaged in the enforcement of this law advise me that much confusion apparently exists and much misunderstanding on the part of physicians relative to the proper accounting and keeping of records of narcotic drugs dispensed by them. In this connection I desire to state that this law and the regulations adopted thereunder require every physician to keep an absolute and accurate account of all narcotic drugs dispensed by him in a record which he is required to provide for that purpose. With one exception only this record must contain the following information. First: the date when any such drug is dispensed or distributed; secondly, the amount of narcotics dispensed or distributed; and thirdly, the name and residence of each patient to whom such drug was dispensed or distributed. The only exception that is permitted in regard to keeping of such record is where narcotic drugs are personally administered by the physician and the Department in ruling upon the

meaning of this exception holds that a physician, dentist, or veterinarian must actually be absent from his office and in personal attendance upon a patient in order to come within the exemption of Section 2 of this Act. Therefore, all narcotics administered by a physician in his office, although the same may be personally administered, must be accounted for, and likewise all narcotics left by him at the bedside of a patient must be properly recorded and accounted for, although left to be administered by others during his absence.

I have been advised that some physicians have in some manner been improperly advised that they can secure a stock of narcotic drugs for personal distribution and dispensation by the use of a prescription blank. This is an erroneous idea as druggists and other dealers are permitted to furnish narcotics to physicians and other registered individuals only when an official order form is executed covering such purchase and the only use of a prescription blank is for the purpose of enabling a non-registered person or patient to secure preparations containing narcotic drugs. On the other hand, physicians in some parts of this district have been found to be using official order forms upon which to write prescriptions for narcotic drugs. This is an improper use of such forms and druggists if properly advised would refuse to fill a prescription written thereon; the official order form is to be used only by the physician or other registered person for the purpose of securing narcotic drugs to replenish his stock used for the purpose of personal distribution or dispensation.

A number of prosecutions have been successfully maintained by the United States in various Circuit Courts and decisions have been secured by the Government establishing the validity of the regulations which have been adopted for the enforcement of this law and the courts have taken cognizance of the fact that prescriptions written by physicians must be evidenced as having been written in good faith and that where the number of such prescriptions written and the quantity of drugs prescribed are such as to furnish a reasonable presumption that they were written for the purpose of evading this law the parties have been found guilty and punished for such violation.

It affords me pleasure to state that so far as the Second District of Wisconsin is concerned I believe that there are very few if any physicians who have intended to violate or circumvent the provisions of this law. Fortunately we have within our bounds no large cities where colonies of addicts to the use of narcotic drugs are found and therefore the field does not exist to lend an inducement to the man who, while possessing the authority to practise medicine, which is supposed to carry with it a high sense of honor and public duty, is willing to dishonor his profession and pollute his own name for the paltry dollars that may be secured through pandering to an illicit traffic. For this reason there has been no occasion in this district to institute prosecutions for wilful violations of the law and I feel that the Collector of this district and his force can well congratulate themselves that the registered practitioners of western Wisconsin are men of the high sense of professional honor that we have to deal with.

About the first of June there will be mailed from the office of the Collector blank forms 678 for use in making application for renewal of registry for the year commencing July 1, 1916. I desire at this time to call particular attention to the necessity of promptly executing and returning these blanks when received. It has been the experience of our office that parties who lay these blanks aside with the intention of caring for them at some future time previous to July 1st are, on account of their many other duties, apt to forget the matter and become delinquent. Last year over 250 parties registered in this district of a total of 2500 failed to file their applications within the time prescribed by law and by this failure not only involved themselves in the liability to 50% increase in the amount of tax, but were also subject under the law to prosecution for dispensing drugs without being registered in case the Collector has seen fit to institute such actions, and therefore I trust that I may be able to impress upon the members of this association the necessity of giving prompt attention to this matter at the proper time.

In closing a few words may not be amiss as to what has been accomplished by this enactment, that all may judge as to whether or not the United States Government was justified in invoking the taxation laws for the purpose of making an effort to remedy the deplorable conditions known to exist in many of the large centers of population in the United States. Quoting from the annual report of the Commissioner of Internal Revenue for the fiscal year ended June 30, 1915, referring to the

first four months experience in the enforcement of this law I read as follows:

"The Act of December 17, 1914, known as the Harrison Narcotic law, which became effective March 1, 1915, had only been in force four months at the close of the fiscal year ended June 30, 1915, but the results accomplished during this short time clearly demonstrate the need for and the wisdom of such legislation.

"Investigations and prosecutions incident to the enforcement of this law have disclosed conditions which require remedial legislation, both with the view of strengthening the law and ameliorating the sufferings of those unfortunate citizens addicted to the use of the narcotics proscribed by this act. which have been brought about by the curtailment of their supply of the drugs, or being entirely deprived of the same without any adequate provisions either in this statute or those of the States or municipalities in which they reside, for the treatment of such persons who, in a great many instances, are financially unable to obtain necessary treatment at hospitals or sanitariums, and in other cases because of advanced age or physical infirmities, can not be deprived of the drugs without endangering their lives.

"The evils of the drug addiction are found among all classes, ages, and conditions of society, there being numbered among the victims persons of both the higher and lower walks of life, and children of tender years to the most aged persons, the latter of whom have in many instances been habitués for over half a century. In some instances it has been discovered that two or more members of the same family and even the whole family, consisting of father, mother and several small children are habitués. In others, the victims were found to be suffering from lingering and incurable diseases, and it is undoubtedly true that in this class of cases the persons could not be successfully treated for the habit. Perhaps a majority of the drug addictions had their inception in the use of narcotics in cases of injuries, sickness, and disease, and the others were no doubt due to evil influence and associations and a desire for new forms of stimulants and dissipation of those of the underworld.

"While no exact figures are available as to the total number of persons in the United States addicted to these drugs, in the course of the enforcement of the law thus far and through investigations by the internal revenue field officers, it has been ascertained there are a great number of habitués in every State, the estimates ranging from 1,000 in the less populous agricultural States to as high as 130,000 in some of the larger populated and industrial States, the grand total probably reaching several hundred thousands.

"During the four months ended June 30, 1915, there were reported a total of 5,085 violations of this law and the regulations made thereunder, of which 528 were by persons registered under the law, and 4,557 by unregistered persons. The violations by the registered persons were distributed among the professions as follows: 257 by physicians, 40 by dentists, 6 by veterinary surgeons, 3 by manufacturers, 5 by wholesale dealers, 211 by retail dealers, and 6 by registered persons not within these classifications.

"Prosecutions were instituted and trials had in 131 cases resulting in convictions in 106 cases and acquittals in 25 cases. Upon convictions fines only were imposed in a number of cases, while in others both fines and imprisonment ranging from short jail terms to three years in the Federal penitentiary, were fixed by the courts. There were 170 cases under indictment or held for the grand jury at the close of the fiscal year. A total of 27 cases were compromised and 4,058 cases involving only technical violations of the law and regulations, dropped upon recommendation of the internal revenue officers and United States attorneys, and 699 cases in which no action had been taken were pending June 30, 1915. In several jurisdictions the courts have rendered opinions upon the constitutionality of this act, in two of which it was held to be constitutional and in the others adversely. A case is now pending before the Supreme Court upon appeal by the United States for final decision upon this question.

"There were 227,972 persons registered under the provisions of this law during the four months ended June 30, 1915. These included 174,189 physicians, dentists and veterinarians, 52,187 wholesale and retail druggists and other distributors, 1,596 manufacturers, importers and producers.

"Collections of special taxes from this source amounted to $199,697.35 and there was collected from the sale of order blanks $48,708.62, making a total of $248,405.97 collected under this law during 1915.

"It is recommended that this law be amended or revised to embody the following provisions:

"First, a tax on the drugs specified, based upon some unit of weight, such tax to be denoted by stamps affixed to original packages or containers, and that the list of proscribed drugs be extended to include chloral-hydrate and canabis indica, and other drugs having the same general properties, with a clear definition of 'substitutes' or 'synthetic substitutes' for such drugs.

"Second. The repeal of section 6.

"Third. That registration under this law shall be limited, and restricted to persons lawfully entitled under State laws to dispense, prescribe, administer, or have in possession such drugs.

"Fourth. That the writing of prescriptions, filling, keeping records, and the altering or forging thereof, be definitely and fully covered by the law with adequate provision for the punishment of the offenses denounced therein, and providing that the tax imposed upon drugs would not attach to such prescriptions compounded from drugs once taxpaid.

"Fifth. That every person registered under the provisions of this law be required to keep record of all narcotic drugs purchased, received, dispensed, distributed, prescribed, or administered, and that collectors of internal revenue be authorized to require sworn statement covering such registered person's operations in these drugs for a given period.

"Sixth. That all of the general provisions of the internal revenue statutes, including those relating to seizures and forfeitures, be extended to and made to apply to the drugs taxed and the persons upon whom special taxes are imposed under this law.

"Seventh. That some provision be made for the treatment, either by Public Health Service, or such other agency as may be designated, of indigent persons unfortunately addicted to the use of these drugs, where the operation of the law brings about conditions necessitating such treatment."

SUPREME COURT CONSTRUES ANTINARCOTIC LAW.

DECIDES THAT THE HARRISON ANTINARCOTIC LAW DOES NOT PROHIBIT PERSONS WHO ARE NOT REQUIRED TO REGISTER FROM HAVING POSSESSION OF HABIT-FORMING DRUGS.

The United States Supreme Court, on June 5, 1916, affirmed the decision of the United States District Court in United States vs. Jin Fuey Moy (Public Health Reports, Jan. 21, 1916, p. 143).

The court decided that the words "any person not registered" as used in section 8 of the law "can not be taken to mean any person in the United States, but must be taken to refer to the class with which the statute undertakes to deal—the persons who are required to register by section 1."

Under this decision, a person who does not import, produce, manufacture, deal in, dispense, sell, or distribute the drugs can not be convicted of violating the Harrison law merely because he has possession of some of the drugs.—*Public Health Reports.*

SUPPLEMENTING STATE LAW BY CITY ORDINANCE.

KANSAS COURT DECIDES THAT A CITY MAY PROVIDE OTHER AND ADDITIONAL RULES AND IMPOSE MORE SEVERE PENALTIES THAN ARE PROVIDED BY STATE LAWS ON THE SAME SUBJECT.

Has a city the power to make more strict regulations and to impose more severe penalties than are provided by the state laws or regulations on the same subject?

This is a question which has been differently decided by the courts of different states, but the Supreme Court of Kansas has decided that in Kansas the question must be answered in the affirmative. (See p. 1499 of this issue of the Public Health Reports.) The court said that "a city may not by ordinance authorize that which a statute prohibits nor punish the doing of an act which the statute expressly authorizes"; but "an ordinance enacted in the exercise of the police power is not necessarily inconsistent with a state law on the same subject because the city provides for greater restrictions or makes higher standards than are provided or made by the statute." The court recognized the fact that "it may be necessary to make additional requirements and stricter regulations and to impose more severe penalties in a congested district like a city than are made and enforced in a rural district.—*Public Health Reports.*

Certified Milk and Cream.—In Portland, Ore., the following standards have been adopted by the city for the standardization of certified milk and cream:

1. Certified milk shall not contain over 10,000 bacteria or germs of any kind per cubic centimeter.
2. Certified milk shall not contain less than 4 per cent butter fat.
3. Certified milk shall not contain less than 12.5 per cent total solids.
4. Certified milk shall not contain an acidity of over 0.2 per cent.
5. Certified milk shall have a specific gravity of between 1.029 and 1.034.
6. Certified cream shall not contain over 50,000 bacteria or germs of any kind per cubic centimeter.
7. Certified cream shall not contain less than 30 per cent butter fat.
8. Certified milk and certified cream shall not have a temperature over 50 degrees F. immediately after being drawn.

CLINICAL STUDIES IN DIABETES.*

II.

ANALYSIS OF THE HABITS AND MODE OF LIFE IN 487 CASES WITH SPECIAL REFERENCE TO FOOD PROBLEMS.

BY H. P. GREELEY, M. D.,

WAUKESHA.

The present clinical study does not aim to bring out any new facts on the subject of diabetes, but is merely an investigation into the intimate habits of diabetics, and an effort to determine whether any of these habits have any bearing on the disease. Such an inquiry might bring out some of the precipitating causes. For example, I feel convinced that in many instances heredity is considered the sole cause of diseases in which in reality environment and habit play an equally important role. In fact, heredity and environment may be likened to the Siamese twins—they work together and are inseparable. The present study is an analysis of cases treated at the Still Rock Spa under the care of Dr. A. J. Hodgson and myself in the last two years. In all it includes 487 cases, which have been classified according to race, sex, age of onset, occupation, habits of sleep, exercise and eating. The use of tobacco and alcohol has also been considered, but has been found to have no determining value other than that alcohol is, in whatever form taken, an additional food. The geographical distribution seems to have no particular bearing, as cases are distributed pretty evenly throughout the United States and Canada.

The average age of onset of these cases among women and men alike was forty-five years. The number of cases between forty and sixty years of age was 304 or 62 per cent. of the total. The number of cases over forty years old was 72 per cent. of the total. Without making further discussion of these figures, it is evident that nearly three-quarters of the cases occurred in the second half of life.

The racial distribution of cases is as follows:

Americans	201	or 43 8/10%
Germans	125	or 28%
Swedes	44	or 9%
Jews	41	or 8%
Irish	36	or 7%

Of the remaining four and two-tenths per cent., there was an almost equal distribution among the Scotch, Canadians, English, Dutch, French, Swiss and Italians. The preponderance of Americans and Germans merely indicates the number of these nationalities in the population in this section of the country and no predisposition among these races. Statistics from one clinic cannot be considered as valuable in showing any racial predisposition to this disease.

Sixty-one per cent. of all cases were among men; thirty-nine per cent. among women. Seventy-three per cent. of cases had either been obese themselves or had given a history of obesity in one or both parents, the statistics being compiled as far as possible from a record of both the patient's and his parents' height in relation to their respective weights. The standard was based upon the following scale: Persons between 5 feet 6 inches in height and weighing 200 pounds and 6 feet in height and weighing 250 pounds or over were rated as obese.

Forty per cent. of the patients had been engaged in definitely sedentary work. Thirty-one per cent. pursued the indefinite occupation of house-wife. We can all imagine what an onslaught our wives would make upon us if we dared call their occupations sedentary, yet careful questioning in these cases generally shows that at the age in which this disease first appeared, the majority of the women had become reasonably inactive. The time of onset is also significant in that it represents that period of a woman's life in which the metabolic and nervous states are undergoing definite transformation, a period also in which the tendency to obesity is well known. Twenty-three per cent. of the cases are classified as farmers or laborers; but here also the age of onset, which is forty-four and a half years, indicates that it is a time of life in which man's activities, owing both to his physical condition, and also to his financial security, are beginning to wane. The remaining six per cent. followed miscellaneous occupations and were largely minors. The significance of these statistics will be discussed later.

No. 1. Diabetics and Focal Infection. Read before Wisconsin Medical Society, October, 1915. Wisconsin Medical Journal, April, 1916.

*Read at the Milwaukee Medical Society, March 28, 1916.

In regard to personal habits, the following facts were brought to light: Fifteen per cent. of the patients gave a direct history of being excessively heavy sleepers averaging from ten to thirteen hours a day. Eighty-two per cent. never had the slightest interference in their sleep. Three per cent. only gave a history of disturbed sleep and this was almost invariably some months or years after the onset of the disease.

The most interesting part of this investigation is in the close analysis of patients' habits of eating. Of course it is a most difficult thing to determine by questioning the actual amount of food consumed by a given individual, but in several ways one may reach a very fair degree of accuracy. For instance, many articles of food are taken in fairly uniform portions; one can determine the number of slices of bread eaten, as well as the number of potatoes and eggs and one can also establish a fairly accurate idea of what a given patient eats by comparing it with a diet of known food value upon which he is placed while under treatment. It is a matter of common experience to have a patient say that the food which he is getting and which furnishes him 35 calories per kilo body weight represents only one-quarter or one-third of what he usually eats; moreover, his diet previous to coming under observation generally consisted of articles of food which represented more concentrated forms of nourishment. The question, therefore, whether these patients had consistently overeaten, admits of no discussion. As far as variety of their food went, it is very surprising to see that the vast majority of cases had lived from choice upon an exceedingly restricted diet. By far the greater number when asked what their diet had been would reply, "Bread, meat, and potatoes," and even after leading questions, only a few more articles of food, such as pan-cakes, pie and sweets would be added. The lack of anything but the coarse vegetables and the almost total lack of fresh fruit, in the majority of patients, was very striking.

The popular conception of diabetes as a disease in which the consumption of sugar and sweetened foods plays a determining role is not borne out by our statistics. One hundred and seventy cases or 34 plus per cent. were especially addicted to sweets. Two hundred and sixty-three cases or 53 plus per cent used them moderately, but not in excess. Fifty-four cases or 11.4 per cent. were positively averse to sugar and sweetened foods. Van Noorden long ago called attention to the fact that although excessive quantities of carbyhydrate food were not consumed in America, yet this was a country in which diabetes was very common. What then, if any, is the food which must be considered most responsible as a factor in precipitating diabetes? In regard to the eating of meat, 176 cases or 36 per cent gave a history of excessive consumption, the remaining cases reporting that they ate it only in moderate amounts. In the study of many hundreds of patients, it is therefore to be seen that one article of food cannot "be held to strict accountability," to use a recently overworked but apparently meaningless phrase. If we may draw any definite conclusion from the study of these statistics, it is that a large majority of cases show a history of having lived for years upon a diet combining foodstuffs of rich nutritive value and taken in excess of the body's needs.

When a patient admits that he eats large quantities of meat or sweets or bread, it is almost invariably fair to suppose that he is underestimating rather than overestimating the actual amount, for few people wish to make their dietetic excesses a matter of personal pride—they are much more likely to attempt to "assume a virtue if they have it not."

The more experience one has in dealing with metabolic disease, the more convinced one becomes that nature is not a good guide in the matter of diet under the artificial conditions which have been created by man. By artificial conditions, I mean the achievements of civilization which have provided for man tremendous stores of the concentrated foods that form such a major part of his diet and that are both readily obtainable and universally used. I also refer to conditions of life by which it is possible for men to live by purely mental and intellectual work without the compensation in physical activity which all primitive peoples and most of our ancestors enjoyed. In other words, the problem of feeding the human family, in spite of the melancholy predictions by many, that the world's food supply will some day run short, seems to be steadily becoming more easy. There has been no period in history in which food has been so enormously abundant and readily obtainable by both rich and poor. Not only this, but very little physical effort, other than that of lifting one's fork to his mouth and putting his hand in his pocket afterwards is required of the class

who suffer from diabetes in order to be abundantly fed. The contrast between this and primitive life is very vast. Under these conditions, the only conclusion that can be drawn is, that eating has become purely a habit and the amount eaten no longer represents the actual need of the body. This statement is more readily understood and confirmed by an intimate acquaintance with diabetics. The withdrawal of food in excessive quantity, even after prolonged periods of complete relief from that craving for nourishment which accompanies the presence of sugar in the urine, resembles more than anything else the withdrawal of alcohol from an alcoholic or of a drug from a drug habitué. In fact, the analogy goes even farther, for the "food habitué," as we may call many a pre-diabetic individual, is often either a "dram drinker," one who is constantly snatching food and eating it, or an inveterate "drunkard" who occasionally or habitually, gorges himself with food. The commonest type of the former in our series of cases, is found in the house-wife, whose constant association with food furnishes the temptation to eat often, and in the man who carries nuts or candy constantly in his pocket. The typical examples of the latter class—those who gormandize—are traveling men who live at the best hotels—and charge their bills up to the firm—or locomotive engineers, who after a very long and tedious and sometimes nerve-racking run, settle down at the end of it for thirty-six to forty-eight hours of eating and sleeping. Some of the individual instances of this kind of thing may be interesting and I assure you are very common. Recently, a baker under my care had been accustomed to eat a whole pan of rolls two or three times a day. After restriction of his diet, his great desire to do this was only satisfied by a form of worship which he performed before bakers' windows. He was known to have run two blocks upon seeing the sign of a delicatessen shop and upon reaching it, to have trembled from head to foot and gazed with longing eyes at the sight before him. Another patient admitted reluctantly that he ate a loaf of rye bread at each meal and that he had an obsession in the matter of potatoes which rendered it impossible for him to pass one anywhere without filching it and eating it on the sly. Still another patient gave us as his regular diet, a pint of oatmeal with two eggs, toast and coffee for breakfast, a hearty lunch of meat and potatoes, pie and cake at noon, and a dinner at night, which often consisted of the edible portions of two porter house steaks with entrées. For a period of months, he was accustomed to take in addition ten to twelve eggs a day and before retiring and during the night would regale himself with two or three cream cheeses. This same patient actually performed a successful experiment of eating 30 quail in 30 days, a feat popularly supposed to be impossible. Such eccentricities in diet are by no means rare, but outside of the actual amount of food taken by certain individuals, are other factors to be considered, particularly, the number of meals taken a day and the habit colloquially known as "lunching," which means eating sometimes as much as a "square meal" before going to bed. A very large proportion of our cases were accustomed to eat at least four times a day. Still another factor was the rapidity with which people ate their food, and in general it is noted that the faster people eat, the more water or other liquids they drink with their meals. These two things seem to contribute in a large measure to the amount of food eaten, since it is a well known fact that if people properly masticate their food, it is almost an impossibility to overeat. So much for individual cases and their habits of eating.

There is still another method of determining the question of food consumption and excesses, and that is by studying national market baskets and occupational dietaries. The following figures taken from the statistical abstract of the United States, from a personal communication from Leon M. Estabrook, chief of the Bureau of Crop Estimates, from the Encyclopedia Britannica and from the January number of the National Geographical Magazine show some of the most interesting facts in this particular regard. First, in regard to the consumption of breadstuffs, it will be seen that Americans are rather small consumers in comparison with the chief European countries. We in the United States consume 300 pounds of breadstuff per capita per year, while England uses 356 pounds, Germany 525 pounds and France 550 pounds. Rice, which occupies a similar position in the dietary of Asiatics, is used by them in very much smaller proportion, about 175 pounds per capita per year, and this figure is based on the supposition that Asia consumes all the rice grown in the world. The consumption of other cereals is much more difficult to obtain, particularly that of corn which is so largely used for stock feeding. Leaving this en-

tirely out of consideration, let us consider the rest of the market basket. This will take us to the next most important staple, that of meat. We consume, in this country, somewhat over 200 pounds per capita per year, an amount which is exceeded only by the Australians. The Englishman eats 119 pounds per capita, the German 113 pounds and the Frenchman only 80 pounds. We are by far the largest beef eaters in the world. The Germans consume much larger quantities of pork and cheese, our cheese consumption being relatively small.

Potatoes, another of the staples, though a comparatively recent addition to the dietary of civilized people, are assuming a greater and greater importance. They were introduced into Europe in the 16th century, probably by the Spaniards who had brought them from Peru where they are indigenous. We consume annually about 500 million bushels or about five bushels per capita. The history of sugar in the human dietary is an extremely interesting one. Its discovery and manufacture is attributed to the Arabs who used it as a medicine. Up to the 18th century it was considered a great luxury and was worth in present money considerably over $3.00 a pound. With the popularity of tea and coffee during the 18th century the use of sugar as food was greatly increased. It is interesting to note, however, that vast as had become the consumption of sugar in 1880, the world trade in this staple has doubled since that time. We, in the United States, consume 90 pounds per capita per year or one-quarter of a pound per capita per day. Butter, the next commonest food which is universally used, we consume to the extent of 17 pounds per capita per year. Condensing these figures in regard to bread, meat, potatoes, sugar and butter to the daily ration per capita in the United States and calculating its caloric value, we have a total of 2,500 calories per day, which is an ample ration for an ordinary store keeper or clerk and which is only a trifle under Voit's standard for a man doing moderate work. All the other articles which make up our national market basket, including all other cereals except wheat, all dairy products except butter, all fish, eggs, cheese, milk, other kinds of sugar, including honey of which we consume 54 million pounds a year, and all fruits and vegetables, including bananas of which we consume 40 million bunches a year, would of course enormously increase the caloric value of our national ration. Comparing the dietary of European countries and of America with that of Asiatics it will be seen that according to our standards they are half starved. The Chinese coolie, whose reputation for endurance and actual work performed is very great, takes only half as much food in actual nourishment obtained as the American lumberman whose diet averages nearly 7,000 calories per day. Not only is there a striking difference between the total amount of food consumed by the Asiatics and that eaten by the Europeans and Americans, but in addition, in Asia, the two articles, meat and sugar, our most concentrated forms of food, are used in very moderate quantities. Fish, which largely takes the place of meat in Japan and China is consumed in much less total quantity, and of course has much less actual food value per pound.

If we could go back a century or two and combine with the statistics of food consumption statistics of the incidence of diabetes and allied conditions, particularly of obesity and gout, it would not only be a valuable study but would be conclusive in proving or disproving the importance of food and its relation to these diseases. What statistics we have show that they are diseases of well-to-do peoples and the so-called civilized nationalities. This does not, however, always mean that the per capita wealth must be great but applies more to wealth in the matter of food and the ease with which it can be obtained. The rate of increase of diabetes and allied conditions has kept even pace with the increase in the use of meat, bread, potatoes and sugar and has increased also as the need for actual physical labor has decreased among civilized peoples. Few of us realize the slow but tremendous changes which have been taking place in this regard. For the past century the genius of man has been occupied in inventing labor saving devices. In many walks of life this has resulted in the almost complete disappearance of anything which approaches physical effort. What has happened in the automobile world is only characteristic of that which has happened in all departments of life. Times have changed since the owner of a one cylinder Cadillac had to turn his engine over ten or twelve times in order to strike fire. Such examples as this could be multiplied a thousand fold and would take us into the realms of all activity; indeed the desire for ease has been a potent factor in driving rural population to the cities, for often the factory worker expends a relatively small amount of physical energy in the per-

formance of his monotonous duties. In contrast to these conditions, which have relatively decreased our necessary metabolic activity, the actual supply of energy in the form of food has increased all out of proportion to the increase in population. At the same time other factors which contribute nothing to the combustion of energy but which have very profound influences on our physical well being have been steadily increasing. I refer to the vast increase in the expenditure of nervous and emotional energy. The incessant desire of the American people for novelty and crazy excitement has contributed a great deal to the lack of balance in our national life and I believe the satisfying of these desires is producing a generation of individuals who are almost entirely without any resources within themselves. This is well demonstrated in our clinic where through temporary absence from their usual occupations, patients who are not acutely ill or incapacitated are for the most part in a pitiful state of inactivity. Their ability to entertain themselves or widen their interests is almost nil. The bearing of this upon their disease is twofold: First, this lack of resources makes them dwell more upon their own condition and become more psychasthenic; and second, it contributes to their physical indolence; the first factor deranging, the second reducing metabolic activity. Among other minor factors which contribute to the slowing down of our metabolism, may be mentioned the overheating of houses and the wearing of heavy clothes, for every bit of heat the radiation of which is prevented means the production of a smaller amount.

In actual figures, the increase of diabetes among the Germans, whose rapid increase in material prosperity during the last 45 years has been so phenomenal, is most striking. Van Noorden's figures for Berlin for deaths from diabetes per hundred thousand population show an increase in 30 years of 500 per cent. In our own country, diabetes has doubled in the last 16 years and in Wisconsin it has increased 300 per cent. in nine years. Our statistics show that those of German descent have brought their mortality from diabetes with them and I infer from this that they have brought those habits of life which we have been discussing with them as well. When will the education of peoples make them wise enough to suit their dietary to modern conditions instead of continuing to eat such huge quantities of concentrated foods as would shame a self-respecting savage?

Cannot we learn through precept and dissemination of knowledge what Europe, particularly Germany, is learning now and cannot we do it without creating an artificial hell on earth? After one and a half years of war, Boas in the Berline Klinische Wochenschrift, Dec. 6, 1915, comments on the scarcity of animal food and says that people who used to have to take Spa treatment regularly now keep themselves in better condition without it. The war is proving an actual benefit to those who were inclined to overeat and those afflicted with obesity and gout. The wider use of a vegetarian diet combined with more physical exercise is constantly improving the health of the civil population and has demonstrated its value even in the army.

As a class, we physicians are not so interested in food problems and the habits of life of our patients as we should be. Of course it is well nigh impossible to impress the healthy public with the importance of these matters because a person who does not feel ill never can be induced to change his habits. Until the necessity is upon him he is hard to be convinced. You can do something in reforming the habits of a person who is in danger of losing his life—a well person turns a deaf ear. The problem therefore must be attacked in two ways: First, by the schools in educating children and teaching them the principles of nutrition and of rational dietetics. Second, in our intercourse with the sick and new born where an opportunity is opened for work along these lines which it is our duty to seize. The prolongation of life is vastly more important than the saving of life. Our power definitely to control the outcome of acute diseases, especially those of infectious origin, is in the last analysis very slight. Our power to control chronic diseases, diseases of metabolism and minor disturbances which contribute so much to a person's inefficiency and which shorten the human span of years, could be as potent in the physical realm of life as Christianity could in the Spiritual. It would perfect the world if it should ever be put in practice. The result would be continued activity and well being and "old age deferred."

In our consultation with the sick we should look into the future as well as treat the present. The *a b c* rules of hygiene should be reinforced and reiterated till people become as interested and as

well informed about feeding themselves as about feeding their stock. The reason for their indifference at present lies in the fact that a sick *man* often remains for years useful and able to support himself, but a sick hog is an immediate and total loss.

The habits of life to which we should train our children, and which we should impress upon parents as their solemn responsibility, are the expressions of the common sense principles which everybody knows and but few practice.

Let us repeat some of the most simple and commonplace rules of hygiene, the following of which would perhaps prevent the so frequent occurrence of chronic diseases of metabolism.

1—A person who from childhood always masticates his food will not often suffer from indigestion or from bad teeth and will not overeat.

2—A person who masticates his food properly will not be tempted to drink too much with meals —he will not become obsese.

3—The amount of starches, meat and sugar in one's diet should be reduced to a minimum and the amount of vegetables and fruits should be correspondingly increased, especially in those doing moderate work only. A good rule to follow is never to eat more than one *cereal* food at each meal.

4—Our final rule of health, then, is to live more slowly and teach every man, woman and child to cultivate a hobby, a resource to make them happy in their hour of need, when their life work is suspended.

The upshot of this clinical study seems to be that prosperity is one of the most difficult things for the individual or the nation to withstand. The increase in diseases of metabolism, which include diabetes, obesity and gout, a triumvirate so identical in etiology and incidence as to be virtually triplets, goes hand in hand with the increase in physical indolence, emotional excesses and excesses in the consumption of food, at a time of life when physical activity necessarily wanes. We believe that these factors, rather than those of physical heredity, are important in the development of diabetes; in other words, that it is the heredity of environment which is the most important consideration, and we can say with the prophets of old that the iniquities of the fathers are transmitted to the children even unto the third and fourth generations. If it were not that nations recruit their strength from the people of the soil they would not long endure, since it takes only a few generations for wealth to corrupt its possessors. Of eternal social significance is that divine edict to the first man which "blesses even in its curse." "In the sweat of thy face, shalt thou eat bread."

Standardization of Milk and Milk Products.—Representatives of creamery interests throughout the United States, and the food commissioners of several states, conferred with representatives of the Bureau of Animal Industry, Department of Agriculture, at Washington, D. C., May 4, with reference to the publication of the results of certain investigations that that bureau had made into the condition of a considerable number of creameries. A progress report was made while the investigation was under way, which on its face showed very unsatisfactory conditions in the creameries visited; and this report, it was said, had been seized on by the oleomargarin interests for the exploitation of their own wares at the expense of creamery products generally. On behalf of the creamery men it was contended that the report conveyed an erroneous impression, prejudicial to them, and it was urged that action be taken to counteract the alleged harm and to prevent the issue hereafter of harmful reports, unless well founded. No definite conclusion or plan of action was formulated. On the two days following the conference of the creamery interests and food commissioners with the Bureau of Animal Industry, the milk producers and other dairy interests of the United States held a convention "to develop uniform practical regulations governing the production and care of dairy products." The standardization of conditions under which milk and cream are handled, pasteurization in the dairy industry, constructive dairy inspection, standards for butter, and the legal regulation of the dairy industry were discussed. Resolutions were adopted to bring about closer relations between the Department of Agriculture and the various dairy interests of the country. A committee was appointed to discuss with the secretary of agriculture the future relations of the Department of Agriculture with dairy interests and prospective legislation liable to affect those interests. A permanent organization was effected, with Mr. M. D. Munn, president of the American Jersey Association and the National Dairy Council, as chairman, and W. T. Creasy, secretary of the National Dairy Union, as secretary.——The Bureau of Chemistry, Department of Agriculture, also has the matter of milk standards actively under consideration, and has announced a hearing in New York, May 9 and 10, by the Joint Commission on Definitions and Standards, for the discussion of standards for milk, cream, condensed milk, and other milk products. This bearing is for the convenience of persons in the New England and other states adjacent to New York. Hearings for the convenience of persons residing in other parts of the country are to be held in the near future.—*Jour. Amer. Med. Asso.*

RUPTURE OF AORTIC ANEURISM INTO RIGHT PLEURAL CAVITY WITH DEATH TWO WEEKS LATER.

BY F. H. MUNKWITZ, M. D., AND
LOUIS JERMAIN, M. D.,

MILWAUKEE.

Death from rupture of thoracic aneurism is not as common as is generally believed. Of 1,829 cases of aneurism collected by Arnold, 863 or 47% died from results other than rupture; such as pressure of the sac upon important nerves and blood vessels or from secondary changes which took place in the tissues and vital organs as the direct or indirect result of such pressure. Goodman states that according to statistics rupture only took place 32 times in 4,593 cases. Hare and Holder found death due to rupture in 289 out of 953 cases.

Hemorrhage from aneurism does not necessarily mean rupture of the sac. The bleeding may be profuse and almost instantly fatal, or it may be severe and alarming and yet cease and the patient live for months and even years afterward.

Osler speaks of a man whom he exhibited to his students at the University of Pennsylvania who, after having had several brisk hemorrhages, lived for 4 years. Death from hemorrhage is relatively more common in aneurism of the third portion of the arch and descending aorta. Rupture may take place externally or into one of the contiguous internal structures or cavities such as trachea, bronchi, oesophagus, pericardium, heart, pleural cavity, lung, vena cava, pulmonary artery, spinal canal, mediastinum and tissues of the neck. Fatal hemorrhage from external rupture is comparatively rare and the aneurismal tumor is usually located in the ascending arch and to the right of the median line. Rupture into the trachea or the bronchi is probably the most frequent. It is not necessarily immediately fatal. Osler reports a patient in whom there were two perforations into the trachea, and who died from a third one into the oesophagus. The usual location of the perforation is into the left bronchus. Rupture of an aneurism into the trachea or bronchi is not always sudden and unheralded. Frequently, in fact, slight hemorrhages, so-called "weeping," may occur for some time previous to the fatal rupture. Bloody sputa may be present for weeks from a granular tracheitis and may again disappear. Even brisk hemorrhages from an open erosion are not always directly fatal. Weeping from crevices in the lamina of the clot may persist for weeks or months before fatal hemorrhage occurs.

Aneurism compressing the lung may give rise to slight and recurrent hemoptysis and lead to mistaken diagnosis of tuberculosis, the so-called "aneurismal phthisis." Rupture into the oesophagus occurred 9 times in Crisp's 226 cases. The coats of the oesophagus may be split and the blood pass between them and rupture into the stomach. Rupture into the pericardial sac is one of the most common causes of sudden death in apparently robust individuals. The aneurismal sac is usually small and situated in the region of the sinus of Valsalva.

Rupture into the superior vena cava is followed by remarkable and distinctive signs and symptoms such as extreme dyspnea, marked cyanosis and edema of the upper part of the body. The face looks blue and swollen as though the individual was being strangulated and the tributaries of the vena cava are greatly distended. There is usually a loud thrill over the precordia and a humming-top murmur with marked systolic intensification. The extraordinary contrast in the appearance of the upper and lower halves of the body is most striking. Pepper and Grifith collected 28 cases of this kind and many have been reported since. The writer enjoyed the opportunity of examining a case of this kind several years ago.

Rupture into the pulmonary artery is more frequent than into the vena cava. The symptoms resemble in many respects those of rupture into the latter structure. The onset is sudden with marked cyanosis and edema but not limited so accurately to the upper half of the body. There is the same loud humming-top murmur with systolic intensification. Rupture into the pleural cavity (usually the left) is said to take place in 21.87% of all cases. Goodman in 1914 reported a case of rupture into the left pleural cavity with recovery. Again in the Journal of The American Medical Association of February, 1916, Goodman and Miller reported a case in which the rupture had taken place six weeks before admission to the hospital and again 6 days before death. A search of the literature by Goodman at that time failed to reveal a similar case.

The following case is of interest because rupture took place into the right pleural cavity two weeks

before death: H. P. S., male, aged 66, architect, family history negative, wife died of aortic regurgitation some years ago. He was an unusually active man, taking care of large business interests in addition to the strenuous duties of his office. Previous history as to disease negative. Habits regular, drank wine and beer moderately. For a short time before the onset of his last illness he complained of some dyspnea on exertion and vague pains in his chest and back but kept on working. On February 7, 1916, while at work at a drawing table bending over the same in order to demonstrate some plans, he suddenly gave a loud cry and fell to the floor. A physician in the building was hurriedly summoned and found patient extremely pale, pulseless and apparently dead. Hypodermic stimulation was however administered and about one-half hour later when his physician, Dr. Munkwitz, arrived, a radial pulse was feebly perceptible. After resting for some time longer the patient was removed in an ambulance to his home, where gradual improvement occurred. Two days after the collapse his physician deemed him strong enough to undergo an examination and found evidence of marked effusion in right pleural cavity, flatness extending upward to spine of scapula. Exploratory puncture was suggested but not insisted upon because of gradual improvement in patient's condition. Improvement continued until 10th day when patient began to complain of difficulty in swallowing solid food; at about the same time hoarseness of voice developed. On 13th day after onset of illness the findings were as follows: Patient propped up in bed, expression decidedly anxious, still very pale, pupils equal and reacting rather sluggishly to light, marked Stokes' collar, very pronounced enlargement of superficial veins in neck and chest especially on left side, breathing somewhat labored. Careful inspection of the cardiac region showed a marked heaving systolic pulsation involving the upper left side of the chest, apex beat displaced downward and to the left rather diffuse. There was present a slight thrill over upper left part of the chest. The area of cardiac dullness was greatly increased especially upward to beneath left clavicle. There was decided flatness over entire right side and absence of breathing sounds and vocal fremitus. There was present a double aortic murmur. Pulse 110 per minute, easily compressible, left radial pulse much smaller and weaker than right but no real delay in transmission. There was present a distinct tracheal tug. Patient's voice was decidedly hoarse and by this time he was totally unable to swallow even water.

The diagnosis of aneurism of arch of aorta was made and X-ray examination decided upon, but before arrangements for this procedure could be made patient suddenly suffered a severe choking sensation and died.

Post mortem examination of chest cavity was permitted under condition that no organs or tissues be removed. Upon opening the thoracic cavity the mediastinal space was found full of blood. The arch of the aorta was found greatly dilated throughout its ascending and transverse portions (diffuse dilatation). On opening the aorta its inner surface appeared extremely patchy with areas of degeneration, calcareous deposits and irregular areas of dilatation. At a point where the arch begins its descent and more to its anterior and right surface a sacular dilatation the size of a small orange and filled with laminated clots was found. This sac had two openings, one into the right pleural cavity to which surface it was quite firmly adherent, and one posteriorly into the mediastinum. The right pleural cavity was found completely filled with blood and the right lung atelectatic.

The interesting feature of this case is the fact that at least the rupture into the pleural cavity occurred two weeks before his death and that a few days before death rupture into the mediastinum, pressure on the esophagus, and recurrent nerve, with possibly a second rupture into the pleural cavity at time of death took place.

If you go into a store to make a purchase you do not expect, and if you are offered some stale shop-worn article, you do not accept it from the merchant, much less pay for it. So it is with your patients when they come to your office or call you to their home; they do not expect you to hand them out some stale shopworn stuff in the way of treatment and pay you for it. They expect you to be up-to-date and prescribe or administer the very latest things in the way of treatment. The best way to acquire a knowledge of what is new is to get out and mix with the fellows who are using them and have adopted them in their practice. If you can not visit the large medical centers and absorb some of the newer things, take a day off and mingle with your neighbors, come to the meetings of the county society; you will get some inspiration and go home refreshed in mind, spirit and body.—*Fayette (Penn.) Mirror (County Society Bulletin).*

REPORT OF A CASE OF PERICARDITIS WITH EFFUSION.

BY D. F. HUDEK, M. D.,

HOUSE OFFICER, MILWAUKEE COUNTY HOSPITAL.

Owing to the comparative infrequency of this condition and the fact that it is often overlooked when present, it may prove of interest to the profession to emphasize the findings connected with a case that came under our observation recently.

B. R., Case No. 18589, white male, aged 26 years, tinner by trade, entered the hospital on March 28th; he complained of "painful and swollen joints." Past history was absolutely negative. Habits were good. Present complaint was that on March 16th, while working, he was taken with pain in the right foot. This persisted for two days with accompanying involvement of ankles, knees, hips and all joints of the upper extremities. This condition became continually worse until he was removed to the hospital on the 28th.

On examination the temperature was 101° F., pulse 98, respirations 30 per minute. Patient was perspiring freely; appeared to be in distress and complained severely of pains in chest and joints of extremities, both uppers and lowers. Chest expansion was limited, especially over left. Percussion note over base of left lung was distinctly impaired and vocal resonance over this area had a somewhat nasal quality. Pericardial sac was pear-shaped and the cardio-hepatic angle seemed to be obtuse on percussion. On auscultation of the heart, the sounds were distant, a systolic murmur at apex was evident, and a suggestive friction rub was heard over area of absolute dullness. The joints of the extremities were swollen, reddened, and painful to palpation and on motion. White blood count was 15,000 per c. mm. Patient was put on salicylates and a soft diet, and an ice bag was placed over precordium.

On March 30th findings were about the same. White blood count was 17,000 per c. mm.

On April 3rd, the heart sounds were distinctly fainter, friction rub was present at extreme base only, and cardio-hepatic angle had widened considerably, all of which evidenced fluid in the sac. The temperature was 103° F., pulse 100, and respiration 40 to the minute. On the strength of this change the pericardial sac was aspirated—the point of entrance being at the xipho-sternal junction on the left border—and 40 cc. of a slightly cloudy, brownish fluid were removed. Needle was withdrawn at this juncture because of the impact of the heart against it. On auscultation at once, the heart sounds were a little more distinct.

On April 4th, the patient appeared to be much improved generally; the heart sounds were much more distinct and more regular. The temperature had dropped to 100° F., pulse to 80, and respirations to 20 per minute.

On April 8th the patient felt fine; cardio-hepatic angle was again acute. Ascultation was about the same with the friction rub at the base only.

On April 11th the heart sounds were normal in intensity. There was a murmurish quality to the first sound at the apex, and a definite to and fro murmur over the body of the heart. Temperature, pulse, and respirations were normal.

On April 16th the heart was slow and regular; no friction rub and only a slight systolic murmur were heard over base of heart. The entire left lung was somewhat hyper-resonant.

On April 26th patient was allowed to leave his bed, and on May 6th was discharged in possession of his former health and strength.

Culture of the fluid showed one or two small pin-point colonies of a minute diplococcus. It proved impossible to grow them further. In the smear these sometimes grouped in short chains of three or four. The fluid showed much fibrin.

The object of this report is to emphasize at least two points which seem to be of primary importance in dealing with this class of cases: 1) Whenever any of the etiological conditions present themselves, too much vigilance in watching for the development of the effusion cannot be exercised. The most diagnostic sign of this is the widening of the cardio-hepatic angle. 2) If the effusion does appear, early aspiration seems to be of distinct therapeutic value. It not only tends to set the process of absorption in motion, but permits a free action to the heart, thus keeping the patient's general condition at its highest possible level, therefore in a state that helps to ward off a fatal issue of the complication.

I wish to express my thanks to Dr. L. M. Warfield for permission to report this case.

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EDITORIALS

HONOR LIST.

THE FOLLOWING COUNTY SOCIETIES HAD EITHER EQUALED THEIR LAST YEAR'S MEMBERSHIP, PASSED IT, OR HAD NO DELINQUENTS ON MAY 1ST. (THOSE HAVING MADE A GAIN ARE INDICATED WITH A *.) IS YOUR COUNTY SOCIETY IN THIS LIST OF PROGRESSIVE ORGANIZATIONS? IF NOT—HAVE YOU DONE YOUR PART TO HELP PUT IT THERE?

CALUMET.
*DUNN-PEPIN.
*FOND DU LAC.
GREEN.
LA CROSSE.
LANGLADE.
LINCOLN.
MONROE.
*OUTAGAMIE.
PORTAGE.
RUSK.
ST. CROIX.
*VERNON.
WOOD.
*OZAUKEE.

HONOR ROLL.

THE FOLLOWING COMPONENT COUNTY SOCIETIES HAVE, ON JULY 1ST, AS MANY OR MORE MEMBERS AS THEY HAD LAST YEAR, OR HAVE NO DELINQUENTS. THE FIGURES INDICATE THE PERCENTAGE OF MEMBERS PAID FOR AS COMPARED WITH THE 1915 MEMBERSHIP.

IS YOUR SOCIETY ON THIS HONOR LIST? IF NOT, WRITE YOUR COUNTY SECRETARY AND ASK HOW YOU CAN HELP TO PUT IT THERE.

Ozaukee	143%
Iowa	108%
Vernon	107%
Dunn-Pepin	106%
Fond du Lac	106%
Outagamie	106%
Manitowoc	104%
Grant	102%
Clark	100%
Columbia	100%
Dane	100%
Green	100%
Lincoln	100%
Monroe	100%
Portage	100%
St. Croix	100%
Wood	100%
La Crosse	95%
Calumet	93%
Langlade	93%
Rusk	90%

NOTICE.

YOUR DUES WERE PAYABLE JAN. 1ST. UNLESS YOU HOLD A 1916 CERTIFICATE OF MEMBERSHIP YOU ARE NOW DELINQUENT AND ARE NOT UNDER THE PROTECTION OF MEDICAL DEFENSE. SEE THAT YOU ARE REINSTATED BY SENDING YOUR SECRETARY A CHECK TODAY. THERE IS DANGER IN DELAY!

PERNICIOUS ANEMIA.

UP to the present time the causes of the various blood and bone marrow diseases remain shrouded in obscurity. We can recognize them clinically, classify them fairly accurately into certain groups, study the pathology in the various organs but we can not say why one of them occurs.

So far as the therapy is concerned we are equally ignorant of the proper methods of attack. We expose the spleen and long bones to the X-ray in leukemias and there is temporary benefit. So far as we know no patient has ever been cured. Various other agents have been tried but with no permanent success.

Pernicious anemia is a very common disease. It is not infrequently unrecognized until it has progressed far. Many remedies have been recommended but none has actually produced a cure. Cases are on record which have lived as long as 13 years from the first recognition of the disease. This is to be borne in mind in evaluating any new method of treatment.

Some years ago Hunter proposed the idea that pernicious anemia was an intestinal intoxication affecting the red-cell manufactory in the bone marrow. The toxin came from bacterial decomposition around decayed teeth. Although Hunter's contention has not been verified *in toto*, there is a wide-spread belief that the toxins which damage the blood-producing foci in the bone marrow have their origin in the intestinal tract. Ulceration of the colon is found often enough in cases of pernicious anemia to lead some to believe that the association of this condition with pernicious anemia is very close.

We do not know just what function the spleen exerts in the body metabolism. Some have shown that it regulates the metabolism of iron. In fetal life and early infancy it is one of the sources of red blood cells. Later it appears to have much to do with the distruction of the old red blood cells. The anatomical structure of the organ has strengthened this belief.

Some think it regulates the amount of unsaturated fatty acids in the blood. An excess of these substances is deleterious to the whole organism. Others have shown that if the spleen is removed the resistance of the red blood cells to hemolysis is increased.

Many splenectomies are now on record. Spleens have been removed for traumatic rupture, for rupture during fevers (typhoid, malaria), for Banti's disease, hemolytic jaundice, hypertrophic cirrhosis, pernicious anemia, leukemia.

From various blood studies made on splenectomized persons there is found at first a leucocytosis, then an increase in the lymphocytes. After several months the blood picture returns to normal and one could not tell from a blood examination whether or not an individual had a spleen.

Within the past two or three years there have been many spleens removed from cases of pernicious anemia. At the recent meeting of the A. M. A. in Detroit there was one session held jointly by the Sections on Practice of Medicine and Surgery during which the subject of Splenectomy was discussed. In general it seemed to the writer that the symposium was unsatisfactory. It was evident that the surgeons had developed a technique which enabled them to remove a spleen without great danger to the patient. Some recommended multiple transfusions of blood in the cases, one patient received twenty transfusions but died within a year after the last transfusion.

Following transfusion there is an immediate improvement which is truly striking. One can see the pallor of the lips and conjunctivae change to a definite pink. The hemoglobin rises and the red cell count also is much increased. Subjectively, the patients feel stronger, the appetite improves and the whole appearance is strikingly benefited. The danger of transfusion lies in the fact that the blood of the donor and that of the patient may not be suitable and rapid blood destruction goes on in the patient as soon as the blood is introduced. In the first transfusions performed a large number of patients were made much worse.

Now, however, we are able easily to determine beforehand by simple experiment whether the bloods of a given donor and that of a given patient are mutually suitable. The whole procedure is quite safe, if performed correctly. Probably the most satisfactory method of transfusion is the sodium citrate method. Or one can defibrinate the donor's blood. This is not a procedure exclusively for the surgical operating room. The blood is removed by puncture of a vein and collected into a flask. Clotting is prevented either by the use of sodium citrate or the blood is defibrinated. This blood is then introduced at body temperature into the vein of the patient.

The complicated and difficult technique developed by surgeons is not at all necessary, in fact it is on the whole inadvisable.

So far as pernicious anemia is concerned, the consensus of opinion was that blood transfusion offered the best hope in spite of the fact that up to the present time no case had been carried farther than has been carried by the older methods of treatment. Splenectomy seemed to be a purely empirical method, which was being done, but for which there seemed no good reason unless it could be shown that the spleen was the organ most concerned in the production of the disease. That is still to be demonstrated.

Personally we do not feel that splenectomy is justified. All our knowledge goes to show that the bone marrow is the seat of the disease and until the cause of the red cell destruction and perversion of the bone marrow function is discovered we are at sea in the treatment.

IS SYPHILIS CURABLE?

"ONCE a syphilitic always a syphilitic," is a saw believed in by many. In the days before the discovery by Wassermann and Bruch of their now widely-used complement-fixation method for determining the presence of syphilitic infection, we had no criteria to determine a cure. Since the introduction of salvarsan as an adjunct to mercury in treatment and the control of the therapeutic result by the Wassermann reaction we are in a better position to give opinion on this most important question. The development of late cerebro-spinal manifestations in patients thought to have been cured of syphilis made a great many skeptics among the medical profession. This pessimistic attitude is encountered not infrequently among laymen and is undoubtedly the cause of much syphilophobia.

As an offset to this doleful view-point cases are accumulating in which not only one but two and even three or four separate infections have occurred in the same individual. These reports come to us well authenticated and while now and then the reporters have seemed to rush too hurriedly into print with their cases of reinfection leaving one in doubt as to whether the condition was not a relapse, nevertheless, there are cases which have been so carefully observed that they settle once and for all time this mooted question.

It would appear that the modern treatment of syphilis is efficacious and that we can answer the question, "Is Syphilis curable?" with a decided, "Yes."

A POOR RECORD.

THE Quarterly Bulletin of the Wisconsin Board of Health reveals a state of affairs which is little short of appalling. Out of 9.016 deaths from all causes, there were 44 from puerperal septicemia. Surely that is food for serious reflection.

From the time when medical students came direct from the dissecting room and examined parturient women to the modern scrupulous technique of competent obstetricians is a long jump but all who handle cases of obstetrics have not made the whole leap. We do not appreciate the storm which broke around the head of Dr. Oliver Wendell Holmes following his classical paper, "On the Contagiousness of Puerperal Fever." The only reason assignable for the idea still held by many non-medical people that there is such a disease as milk-fever is the ignorance of those who are the teachers of the people in matters of this sort.

Ignorant midwives are undoubtedly largely responsible for such a belief among the uneducated people. However, we can not altogether shirk our responsibility as physicians and guardians of the public health. We unfortunately know of licensed practitioners who, through ignorance themselves or through fear of the truth, propagate the milk-fever or malaria ideas, when their patients develop fever about the third day of the puerperium.

We do not hold that there should never be a death from puerperal fever. We have seen a case develop in hospital where the most careful attention was paid to every detail. There are cases which have developed following a normal labor when no digital examinations had been made. Such cases are exceedingly rare.

There is no condition known to us in which the responsibility can be so clearly placed as it can be in puerperal septicemia. When the infection develops it is almost invariably and very definitely somebody's fault. The somebody who conducted the labor actually infected the parturient woman.

Of these forty-four killed by dirty hands or slovenly technique, it would be both interesting and important to know what proportion of these

were delivered by midwives and what proportion by licensed physicians.

Obstetrics does not receive the attention its importance deserves in the curricula of most medical schools. The average young practitioner enters upon his work with a colossal ignorance of the science of obstetrics. Never having seen forceps applied, he is called upon to perform a forceps delivery. Or perhaps there is a brow presentation or an arm or leg prolapsed, what must be the state of mind of the honest young doctor when he finds himself face to face with actualities and not with mere names heard in class room work.

Our obstetric teaching should be improved. Women in these days have the right to demand cleanliness and skill when such are well known procedures.

The general campaign of education in public health is reaching into all classes. Some day the people will know that mothers should not die of infection following childbirth.

THE NATIONAL BOARD OF MEDICAL EXAMINERS.

ELSEWHERE we publish in full a circular sent out by the secretary of the Board. Those who read the circular will please note that a certificate given by the Board does not yet have any value except as an indication of advanced standing. The practical value will come when the various State Boards of Medical Examiners see fit to accept the certificate of the National Board in lieu of examinations.

It is the hope of those interested in this new Board that the States will accept the certificate so that a physician having passed the examination of the National Board may practice in any state he chooses or move as often as he pleases without further examination.

The sovereignty of the several States of the Union has advantages, we will admit, but we have always felt that in the matter of license to practice medicine the Federal Government should control the examinations and issue certificates which would enable men to locate in any part of the United States which they chose. If this Natiosal Board is the entering wedge of such a pleasant prospect, we doubly welcome it, first for what it stands for now, and secondly, for what it might become later.

WARNING.

We are advised that a very clever swindle is being worked by a young man calling on physicians in various sections of the country. He is fraudulently soliciting orders and collecting money for subscriptions to medical journals and for medical books published by various firms. He usually represents himself as a student, working his way through college and trying to get a number of votes to help him win a certain contest. He sometimes uses the names of L. D. Grant, H. E. Peters, R. A. Douglas and F. C. Schneider and he usually gives a receipt bearing the heading of some Society or Association, such as United Students Aid Society; the Alumni Educational League; the American Association for Education, etc.

The description given of this swindler is—young man of the Jewish type, rather slender, with very dark hair combed straight back and shows his teeth plainly when talking.

The whole scheme is a fraud. The Societies mentioned do not exist. The idea is to collect money by offering special discounts and prices on medical books and journals and skip with the money.

This young man does not represent W. B. Saunders Company, whose name he frequently uses. He is a fraudulent subscription agent, and physicians, generally, should be on the lookout for him.

During the past three months Baby Week has been observed in more than two thousand cities and towns throughout the United States. Many requests for the loan of exhibits and lantern slides have been received by the National Committee for the Prevention of Blindness. On checking up the list of those cities using the exhibits, it is interesting to note that a total of seventeen communities, in as many states, showed the exhibits on Babies' Sore Eyes and Midwives. The Committee's slides and stock lectures on the prevention of infantile blindness were loaned to organizations in fifteen cities. In a number of places they were used by several social organizations, so that the educational value was very far-reaching. More than 28,000 of the Committee's publications were distributed, and the requests for these various types of educational material were far in excess of the ability of the Committee to supply them.—*News Letter.*

The publications of the National Committee for the Prevention of Blindness have been in great demand, and special editions have been prepared for a number of State organizations. Permission has been given to the trustees of the Canton Christian College to translate Publication No. 6 on "Trachoma" into the Chinese language. A translation in the Polish language of Publication No. 3, "Needlessly Blind for Life," has been made for the Committee by Dr. Francis E. Fronczak, Commissioner of Health, Buffalo, New York. It is believed that there will be opportunity for wide distribution of this publication in that language, and it is hoped that any Department of Health or Health Officer in any city where there is a Polish community will arrange for the local distribution of this valuable leaflet. It may be had in English, Yiddish, Italian, and Polish.—*News Letter.*

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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NEXT ANNUAL SESSION, MADISON, OCTOBER, 1916.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. O'Brien, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	C. L. R. McCollum, Forest Junction	N. J. Knauf, Chilton, Wis.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	C S. Sheldon, Madison	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. F. Eames, Egg Harbor	T. C. Proctor, Sturgeon Bay.
Douglas	W. H. Zwickey, Superior	W. A. McEachern, Superior.
Dunn-Pepin	F. E. Butler, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	J. C. Baird, Eau Claire	E. P. Hayes, Eau Claire.
Fond du Lac	A. J. Pullen, North Fond du Lac	H. C. Werner, Fond du Lac.
Grant	N. E. McBeath, Livingston	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	J. A. Kiethly, Palmyra	W. A. Engsberg, Lake Mills.
Juneau	C. C. Vogel, Elroy	A. T. Gregory, Elroy.
Kenosha	J. H. Cleary, Kenosha	J. F. Hastings, Kenosha.
La Crosse	H. E. Wolf, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Huhenthal, Belmont	H. O. Shockley, Darlington.
Langlade	F. V. Watson, Antigo	J. C. Wright, Antigo.
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	S. M. B. Smith, Wausau	R. M. Frawley, Wausau.
Marinette-Florence	E. E. Axtell, Marinette	R. R. Heim, Marinette.
Milwaukee	Franz Pfister, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	R. C. Faulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	E A. Morse, Appleton	W. N. Moore, Appleton.
Ozaukee	O. J. Heuth, Cedarburg	G. T. Savage, Port Washington.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B Bock, Sheboygan	Arthur Knauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	J. B. Noble, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	H. A. Jefferson, Clintonville	G. T. Dawley, New London
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. P. Tedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

BROWN COUNTY

Brown County Medical Society met on June 28th, at the Beaumont Hotel, Green Bay, and an address by James H. McGillan on "Malpractice Suits" was a feature of the meeting.

DANE COUNTY

The May meeting of Dane County Medical Society was held at Turner Hall, on May 10th at 8 P. M. The program follows: "Treatment of Cerebro-Spinal Lues," Dr. James Dean; "Vaginal Discharge," Dr. Robert Newman; "The Harrison Anti-Narcotic Law," W. N. Wells, Chief Deputy, Internal Revenue Service.

EAU CLAIRE COUNTY

At the meeting at Eau Claire, on May 29, the following program was given:

The Mechanical and Surgical Treatment of Talipes due to Anterior Poliomyelitis, Dr. C. C. Chatterton, St. Paul. Report of Case of Multiple Abscesses of the Liver, Dr. Nels Werner, Barron. Supper was served at the Galloway preceding the meeting.

GRANT-IOWA-LAFAYETTE COUNTIES

A joint meeting of the county medical societies of Grant, Iowa and LaFayette counties was held at the Commercial Club Rooms at Mineral Point, June 6th. A sumptuous banquet was served at the Hotel Royal to about forty members. Interesting papers were read by Dr. Ridott of Freeport, Ill., on "Focal Infections of the Upper Respiratory Tract"; Dr. McBeath of Livingston on "The U. S. Army Medical Reserve Corps"; Dr. James Jackson of Madison on "Stomach and Duodenal Ulcers," showing X-ray plates demonstrating same.

IOWA COUNTY

The following officers for the Iowa County Medical Society were elected at Mineral Point at the joint meeting of the Medical Societies of Grant, Iowa and La Fayette counties: President, Dr. G. H. McAllister, Avoca; vice-president, Dr. W. J. Gratiot, Mineral Point; secretary-treasurer, Dr. J. R. Hughes, Dodgeville; delegate, Dr. W. M. Gratiot, Mineral Point.

JEFFERSON COUNTY.

Jefferson County Medical Society met at Palmyra on June 15. The meeting was in the form of a public health meeting, which is held once a year. A deputy of the State Board of Health addressed the meeting. Dr. J. A. Keithley of Palmyra read a paper on "General Public Health." After the meeting the physicians were entertained by Dr. Keithley at his home, where refreshments were served.

NINTH COUNCILOR DISTRICT.

A meeting of the Ninth Councillor District Medical Society was held at Steves Point on May 25th. About fifty members attended. The officers selected for the ensuing years were. President, Dr. Donald Waters, Grand Rapids; secretary-treasurer, Dr. Jos. F. Smith, Wausau. The following schedule of meetings for the coming year was adopted: Summer meeting, Grand Rapids; fall meetings, Wausau; winter meeting, Marshfield; spring meeting, Stevens Point.

OSHKOSH MEDICAL CLUB.

The annual banquet of the Oshkosh Medical Club was held on June 1st at the Athearn Hotel. Fifty-eight covers were laid. Dr. Neil Andrews presided at the dinner, which was followed with an address by Dr. Frank Brockway, superintendent of the State Tuberculosis sanatorium.

ROCK COUNTY

A meeting and banquet of the Rock County Medical Society was held at the Hotel Hilton on May 31st. About fifty members attended. Dr. E. C. Helm acted as toastmaster. Prof. C. A. Culver gave an interesting address, which was a plea for a greater study of pure science. Following the address the guests partook of a six course banquet.

TWIN CITY MEDICAL ASSOCIATION

The monthly banquet of the Twin City Medical Club was held on June 7th at the Theda Clark Hospital. After the dinner an address on Tubercular Diseases was given by Miss Kathryn Olmstead of Milwaukee.

WASHINGTON COUNTY

At a meeting of Washington County Medical Society, June 29, the following officers were elected: J. G. Hoffman, Hartford, president; S. J. Driessel, Barton, vice-president; A. H. Heidner, West Bend, secretary; H. H. Albers, Allenton, delegate; A. H. Heidner, West Bend, alternate.

WOOD COUNTY.

The summer meeting of the Wood County Medical Society was held at the Wood County National Bank, Grand Rapids, on June 28. The following program was given: "Orchitis," Dr. J. C. Hayward; "Cholera Infantum," Dr. Hugh Waters; "The X-Ray in the Diagnosis of Fractures," Dr. W. G. Merrill.

MEETING OF HEALTH OFFICERS

The third biennial conference of health officers will be held August 2 and 3 at Madison. Attendance is required by law of all local health officers, whose expenses must be paid by the cities sending them. One of the principal addresses will be by Dr. W. A. Evans of Chicago, who will speak at a public meeting in the evening. A representative of the United States Public Health Service will also participate in the program.

NEWS ITEMS AND PERSONALS

THE NATIONAL BOARD OF MEDICAL EXAMINERS OF THE UNITED STATES.

The need of a standard medical examining body for the whole United States and its Territories (tributary thereto) has occasioned the organization of The National Board of Medical Examiners. It is a voluntary board, the members of which are selected from the Medical Corps of the Army, the Navy, and the Public Health Service, the Federation of State Examining Boards, and other representative organizations, and the medical profession of the United States.

The aim of this Board is to establish a standard of examination and certification of graduates in medicine, through which by the co-operation of the individual Boards of Medical Examiners, the recipients of the certificates of the National Board of Medical Examiners may be recognized for licensure to practice medicine.

The policy of the Board is to conduct its examinations on a broad scientific basis of such a high, yet practicable, standard that the holders of its certificates will receive universal recognition.

The independent action by the Board is furthered by the financial and moral support of the Carnegie Foundation.

The original Board consisted of fifteen members, as follows, and remains unchanged, except for the loss of the founder and secretary, Dr. Rodman, who died on March 8, 1916. At a meeting June 13, 1916, Dr. W. L. Bierring, of Des Moines, Iowa, was elected to the Board.

Surgeon-General W. C. Braisted, U. S. N., President.

Dr. W. L. Rodman, Secretary.

Colonel Louis A. LaGarde, U. S. A., Ret., Treasurer.

Surgeon-General W. C. Gorgas, U. S. A.

Surgeon-General Rupert Blue, U. S. P. H. S.

Medical Director E. R. Stitt, U. S. N.

Assistant Surgeon-General W. C. Rucker, U. S. P. H. S.

Dr. Herbert Harlan, Federation of State Medical Examining Boards.

Dr. Isadore Dyer, New Orleans, La.

Dr. Victor C. Vaughan, Ann Arbor, Mich.

Dr. Henry Sewall, Denver, Colo.

Dr. Louis B. Wilson, Rochester, Minn.

Dr. E. Wyllys Andrews, Chicago, Ill.

Dr. Horace D. Arnold, Boston, Mass.

Dr. Austin Flint, New York, N. Y.

The permanent organization of the Board will consist of the three Surgeon-Generals and one other representative from each of the Government Medical Services, three representatives of the Federation of State Medical Examining Boards, and six members chosen at large from the medical profession by the National Board of Medical Examiners.

The official domicile of the Board is Washington, District of Columbia.

REQUIREMENTS.

Requirements for Admission to the Examination. Satisfactory completion of

(*a*) *High School.* A four-year high school course.

(*b*) *College.* Two years of acceptable college work, including physics, chemistry, biology, and a modern language.

(*c*) *Medical School.* Graduation from a Class "A" medical school. (American Medical Association classification.)

(*d*) *Hospital Training.* One year as interne in an acceptable hospital or laboratory.

The above requirements apply to graduates of medical schools in 1912 and thereafter. The Board may accept equivalent credentials in the case of graduates previous to 1912.

EXAMINATIONS.

The Board has been given spacious rooms in the Army Medical Museum for conducting its examinations. They will be conducted primarily by members of the Board, and will be written oral, and practical, including the examination of cases. In addition to the written examinations held in the Army Medical Museum, oral, written, and laboratory examinations will be held also in the Army and Navy Medical Schools, and in the Hygienic Laboratory of the Public Health Services, these facilities, as well as the Government Hospitals wherein will be held clinical examinations, having been placed at the disposal of the Board for the purpose.

Credentials must be presented to the Board sufficiently early for investigation. If adequate time is not allowed for this purpose, credentials may be rejected.

The following subjects will be included:

1. *Anatomy:*
   - Microscopic.
     - Embryology.
     - Histology and Organology.
     - Neurology.
   - Gross.
     - Osteology.
     - Dissection.
   - Applied.
     - Regional, Topographical, Surgical.

2. *Physiology:*

3. *Chemistry and Physics:*
   - Organic.
   - Physiological.
   - Physics.

4. *Pathology and Bacteriology:*
   - Bacteriology.
   - Microscopic Pathology.
   - Gross Pathology.
   - Surgical Pathology.

5. *Materia Medica, Pharmacology and Therapeutics:*
   - Materia Medica.
   - Pharmacology.
   - Therapeutics and Prescription Writing.
   - Electrotherapeutics, including Radiotherapy.

6. *Medicine:*
   - Theory and Practice.
   - Physical Diagnosis.
   - Laboratory Diagnosis.
   - Diseases of Nervous System, including Psychiatry.
   - Diseases of Children.
   - Tropical Medicine.

7. *Surgery:*
   - General, including Minor Surgery.
   - Operative Surgery.
   - Special Surgery.
     - Ear, Nose and Throat.
     - Eye.
     - Genito-urinary.
     - Orthopedics.
     - Radiology.
     - Skin Diseases.
     - Syphilis and Venereal Diseases.

8. *Obstetrics and Gynecology.*

9. *Hygiene and Sanitation:*
   - Sanitary Science.
   - Epidemiology.
   - Vital Statistics.
   - State Medicine.

10. *Medical Jurisprudence.*

SUBJECT VALUES.

1. Anatomy	100
2. Physiology	75
3. Chemistry and Physics	75
4. Pathology and Bacteriology	100
5. Materia Medica, Pharmacology, and Therapeutics	75
6. Medicine	200
7. Surgery	200
8. Obstetrics and Gynecology	100
9. Hygiene and Sanitation	50
10. Medical Jurisprudence	25
Total	1000

Passing grade is an average of 75 per cent.

A candidate receiving a mark below 50 per cent in one subject or below 65 per cent in two subjects, fails.

Candidates failing at the first examination may register for a second examination at the end of one year. A third examination will not be allowed.

It is expected that the examination will cover about one week.

No fee is charged for the examination itself, but a registration fee of Five Dollars will be required.

The first examination will be held in Washington, beginning October 16, 1916.

CERTIFICATION.

Candidates who have been successful in passing the examination and are approved by the Board will be granted certificates.

This certificate is not a license to practice medicine, nor does it exempt the holders thereof from complying with the legal requirements of the States in which they desire to practice; but it will be evidence of high attainment in medical

knowledge; and will, the Board believes, soon be accepted by State Boards as evidence of qualification for licensure.

Further information and application blanks may be obtained from the Secretary,

Dr. J. S. Rodman,
2106 Walnut Street, Philadelphia, Pa.

John B. Youmans, Mukwonago, has been appointed director of the newly established municipal laboratory of hygiene at Superior, which opened on July 1st.

Dr. A. J. Pullen, of North Fond du Lac, has been chosen president of the Fond du Lac County Humane Society.

Dr. T. C. Clark, Oconto, is the new manager of the Oconto County Hospital.

Prof. Frederick C. Mayer has been appointed Dean of the Department of Pharmacy of Marquette University to succeed Dr. H. C. Russell, who resigned to enter private practice.

Dr. G. M. Steele, Oshkosh, is convalescing at St. Luke's Hospital, Chicago, following a serious operation.

Dr. W. O. Fellman, Milwaukee, whose resignation from the staff of the Home for Dependent Children took effect January 1, has temporarily resumed duty at the Home. He will fill the place of Dr. Dirk Bruins, his successor, who has been called to duty with the Medical Corps.

The trial of the $35,000 malpractice suit against Dr. J. A. Freudenberg of Markesan was brought to a sudden close on June 19th, by the death of the plaintiff.

Drs. H. C. Reich and John Tasche, Sheboygan, are defendants in a $15,000 malpractice suit brought by Miss Frieda Schultz of Plymouth, Wis.

Dr. E. S. Schmidt, Beloit, is being sued by James Adams in the sum of $10,000. Suit is brought to recover damages for the loss of eyesight following an operation for the removal of a cataract. An accident during the operation is alleged to have been responsible for the loss of eyesight.

A jury in circuit court rendered a verdict for the plaintiff in the case of Alexander Bialecki vs. Dr. J. H. Voje, Oconomowoc, awarding him $560 damages. He asked for $20,000. The plaintiff charged that during a stay at Dr. Voje's institution he suffered an attack of suicidal mania and jumped from a window, dislocating his arm. Because of the failure of the defendant to give the arm immediate attention, the plaintiff alleged that he has been permanently disabled.

Dr. John R. McDill, Milwaukee, on his way to Germany to take charge of a field hospital, was detained by the British, and all instruments and other supplies taken from him, as well as a letter of identification which was attached to his letter of credit.

The following is from Ft. Atkinson: "To all of those dependent for support upon members of Company B, now enlisted for service in the regular army, we most heartily offer our professional services gratis, at any time they may be needed. Signed: H. O. Caswell, R. C. Morris, E. J. Gibson, L. J. Bennett, Wm. H. Weld, Will Young, W. T. Clark, O. Galloway."

"The Medical Society of Milwaukee County, through its acting president, Dr. P. H. Rogers, and its committee on public policy and legislation, volunteers the services of its members gratuitously to the families of the guardsmen on duty who may be dependent on the earnings of such members, for such time as may be necessary. It is the desire of the county medical society to co-operate with all existing relief agencies."

Dr. Florence B. Sherbon and Miss Elizabeth Moore, agents of the Children's Bureau of the Federal Department of Labor, Washington, are making an extensive study of the conditions surrounding infant welfare in Iowa and Marathon counties.

Health of Wisconsin troops at Camp Douglas or in the field is to be well looked after, if the strength of the medical department of the regiments is considered. The staff of the Wisconsin National Guard is: Field Hospital Co. No. 1—Major C. H. Stoddard, commanding; Lieut. C. J. Kenney, Milwaukee; Lieut. R. L. Williams, Wales;

Lieut. Arthur A. Mitten, Lieut. Benjamin B. Rowley, Milwaukee.

First Regiment: Major J. W. Frew, commanding; Lieut. D. Bruins, Lieut. Robert Blumenthal, Lieut. J. E. Armitage, all of Milwaukee.

Second Regiment: Major James R. Scott, Appleton, commanding; Capt. Geo. H. Scheer, Sheboygan; Lieut. W. C. Watkins, Oconto; Lieut. W. N. Moore, Appleton.

Third Regiment: Major Donald McArthur, commanding, La Crosse; Capt. L. A. Moore, Monroe; Lieut. Robert Gray, La Crosse; Lieut. J. R. Bryant, Wausau.

The Laboratory of the State Board of Health recently established at Rhinelander has been equipped, and its facilities are now at the service of the large north Wisconsin territory. A. A. Sliwinski, formerly of the staff of the State Laboratory, is the director.

The $10,000 damage action of John Vaculik against Marquette University and Dr. F. M. Shulz, superintendent of the County Hospital, was on June 2nd nonsuited by Circuit Judge O. M. Fritz. Plaintiff declared that his son died at the county hospital on Nov. 7, that he was not notified until Nov. 23, and was then told that the body had been given to Marquette University. He asserted he was required to pay $15 and was given a body which was cut up. Judge Fritz held that the body was promptly turned over to him, that the body had not been dissected, and that the law had been complied with.

The union of three of Philadephia's largest medical schools, the University of Pennsylvania Medical College, Jefferson Medical College and Medico-Chirurgical College, was consummated on June 3, under the name of the Medical School of the University of Pennsylvania and the Jefferson Medical College of Philadelphia. The identity of the University school and Jefferson College is preserved inviolate. Under the agreement, Medico-Chirurgical is to become the post-graduate school of the new institution in a building to be erected for the purpose.

Wisconsin with 2,803 physicians and a population of 2,473,533 has one physician for every 882 population, compared with an average of one to every 691 people for the entire country. North Dakota has the fewest to population—one to 1,217 people.

Sterilization of women inmates of the State Home for Feeble Minded at Chippewa Falls was authorized by the State Board of Control at a meeting held on June 29th. All objections by relatives and the patients themselves were waived, and the Board announced that thirty women would undergo the operation.

Notes from Health News, issued by the United States Public Health Service: "The United States Public Health Service has reduced malaria 60 per cent in some localities.

The death rate from typhoid fever in the United States has been cut in half since 1900.

Pneumonia kills over 120,000 Americans each year.

The United States Public Health Service issued a free bulletin on the summer care of infants.

The state of California has reduced its typhoid death rate 70 per cent in the past ten years.

Public Health Bulletin No. 76 just issued by the United States Public Health Service, contains the results of a study of "Health Insurance—Its Relation to the Public Health."

In response to public interest in health insurance the Massachusetts legislature has created a commission to study social insurance with special reference to sickness. California has a commission already at work on this problem which is attracting wide attention since the introduction this year of bills for health insurance in Massachusetts, New York and New Jersey.

The next examination for appointment in the Medical Corps of the Navy will be held on or about August 7, 1916, at Washington, D. C.; Boston, Mass.; New York; Philadelphia; Norfolk, Va.; Charleston, S. C.; Chicago; Mare Island, Cal., and Puget Sound, Wash. Full information with regard to the physical and professional ex-

aminations, with instructions how to submit formal application, may be obtained by addressing the Surgeon General of the Navy, Navy Department, Washington, D. C.

W. B. Saunders & Co. have issued the following warning to physicians: "We are advised that a journals and for medical books published by various firms. He usually represents himself as a student working his way through college and trying to get a number of votes to help him win a certain contest. He sometimes uses the names of L. D. Grant, H. E. Peters, R. A. Douglas and F. C. Schneider, and he usually gives a receipt bearing the heading of some society, such as U. S. Aid Society, the Alumni Educational League, the American Association for Education, etc.

The description given of this swindler is—young man of the Jewish type, rather slender, with very dark hair combed straight back and shows his teeth plainly when speaking. The whole scheme is a fraud. The idea is to collect money by offering special discounts and prices on medical books and journals and skip with the money."

MARRIAGES

Dr. C. U. Senn and Miss Harriet A. Smith, both of Ripon, on June 16th.

Dr. Clara Moore and Mr. James Phillips, both of Madison, on June 17th.

Dr. Alfred Carthaus, Thiensville, and Miss Jennie Kaestner, Plymouth, on June 24th.

Dr. J. C. Mortensen and Miss Jeanette Donnelly, both of Milwaukee, on June 24th.

Dr. William J. Schade, Lancaster, and Dr. Grace McClain, Fairfield, Iowa, on June 21st.

DEATHS

Dr. Albert C. Welch, Weeping Water, Nebraska, died on June 2nd, aged 62 years. Dr. Welch formerly resided at Delavan, Wisconsin.

Dr. Sue Hebard, Chippewa Falls, died on June 15th, after an illness of two weeks' duration, beginning with a stroke of apoplexy. Dr. Hebard was born at Mondovi, 36 years ago. She was a graduate of the University of Minnesota, in 1903. After graduation she practiced for a time with her father at Mondovi, and recently came to Chippewa Falls to take charge of the public health nursing. She was a member of the Chippewa County and the State Medical Societies.

Dr. M. W. Taylor, Kilbourn, died on June 15th, after a year's illness of tuberculosis. Melvin W. Taylor was born in Eaton County, Michigan, Feb. 6, 1853. At the age of eight he moved with his parents to Adrian, Michigan. He studied medicine at the University of Michigan Medical School, Ann Arbor, graduating in 1879. He had practiced at Kilbourn for thirty-five years. He was a member of Columbia County and the State Medical Societies.

REMOVALS

Dr. I. F. Thompson, Rhinelander to Eau Claire.

Dr. L. J. Friend, Milwaukee to Merrill.

Dr. G. F. Kenney, Thiensville to Milwaukee.

Dr. J. J. Burke, Algoma to Rice Lake.

Dr. G. H. Lawrence, Milwaukee to Sturgeon Bay.

Dr. M. W. Ward, Norwalk to Poynette.

Dr. Lucian C. Davis of St. Joseph, Mo., has located at Luxemburg.

Dr. Geo. C. Rieckhoff, Milwaukee, has accepted an interneship at St. Mary's Hospital, Detroit, Mich.

Dr. O. S. Canright, for the past twenty-eight years located at East Troy, has disposed of his practice to Dr. S. G. Meany of Crandon, and will locate at Haskins, Ohio.

BOOK REVIEWS

DISEASES OF THE DIGESTIVE TRACT AND THEIR TREATMENT, by A. Everett Austin, A. M., M. D., Former Professor of Physiological Chemistry, at Tufts College, University of Virginia, and University of Texas; Present Assistant Professor of Clinical Medicine, In Charge of Dietetics and Gastrointestinal Diseases, Tufts College;

Member of American Gastroenterological Association and American Society of Biological Chemists; Physician to Mt. Sinai Hospital, and Berkeley Infirmary, and Assistant to Boston Dispensary; Author of "Manual of Clinical Chemistry," etc. With eighty-five illustrations, including ten color plates. 8vo, 552 pages, cloth, $5.50. C. V. Mosby Company, St. Louis, 1916.

This is a book which is a little different from the usual text-book. The distinction lies in the fact that the author in his preface recognizes the plethora of books on the subject and frankly admits it, hoping thereby to justify himself for his action. His is a strictly clinical book. It is not intended to give physiology or pathology except in very small doses at intervals.

His method is didactic; he details symptoms. He recognizes that the stomach and intestines have not a monopoly on all the diseases showing gastrointestinal symptoms. We are struck particularly by one short paragraph in the preface: "Having during a somewhat busy life passed through many periods of mild intoxication on the part of the medical profession from new discoveries, supposed to outlast time, but now forgotten, many of the newer investigations, not fully established, remain unmentioned; time will ripen them if worthy of credence, and, if doomed to be disappointments, we need not spoil our taste for the perfect fruit. Among these is that of ideal stasis, which seems altogether too common to indicate a true pathologic condition." With which sentiments the reviewer heartily agrees. We find all of sixteen pages devoted to the Physiology of Digestion. Possibly in that space can be condensed all that a physician needs to know of the physiology of digestion in order to make him competent to diagnose and treat diseases of the digestive system.

The book is divided into three main sections; Part I, General Characteristics, pages 18 to 291; Part II, Special Gastric Diseases, pages 295 to 395; Part III, Special Intestinal Diseases, pages 397 to 540.

The book strikes us as being neither elementary nor advanced. It might be of assistance to a medical student or to a physician who had forgotten most of his knowledge of these diseases and wanted something, but not too much, about them.

We do not see why all the illustrations of radiographs should show us the stomach on the right side and the cecum on the left. The drawings, e. g., on pages 19, 39, 96, show the exact opposite, the true position for illustrative purposes. We believe this will be most confusing and misleading to one not versed in fluoroscopy or radiography.

The discussion of the various subjects is rather incomplete and the chapter on Dietetics is, to say the least, muddled.

The section on Nervous Dyspepsia occupies a relatively small space and attention is called to the fact that neuroses are nearly always secondary manifestations of trouble not actually in or around the stomach.

The book contains no teaching which is incorrect, as far as we know. It is a fairly good presentation in brief form of the subject of Diseases of the Digestive Tract.

A Text-Book of Fractures and Dislocations, With Special Reference to Their Pathology, Diagnosis and Treatment. By Kellogg Speed, S. B., M. D., F. A. C. S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Ill. Octavo, 888 pages, with 656 engravings. Cloth, $6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

Every form of fracture and dislocation is dealt with most fully in this work, which, because of its completeness and its accurate illustrations, is destined to fill a place of accepted authority in the literature. Unique and important features of the work are the author's method in discussing fractures and dislocations, which are considered together under their several anatomical divisions, and the special reference and emphasis which are given by the author to pathology, diagnosis and treatment.

A clear conception of osseous injuries and their repair is essential to an understanding of fractures. For this reason the author has selected examples of different types of usual fracture pathology and endeavored to bring them before the reader's eye by means of line drawings, which illustrate the essential points. Every illustration of this character is a careful reproduction of a tracing made from a Roentgenogram of an actual case, for the most part taken from the author's own practice. Much of the clinical and all of the statistical material of this book was obtained at the Cook County Hospital, Chicago.

Physicians called upon to treat cases of fracture or dislocation will find Dr. Speed's book an invaluable aid and guide, for the author's exceptional experience and acknowledged authority give proof of the wisdom and advisability of the measures he advocates.

Rules for Recovery from Pulmonary Tuberculosis. A Layman's Handbook on Treatment. By Lawrason Brown, M. D., of Saranac Lake, N. Y. Second edition, revised and enlarged. 12mo, 184 pages. Cloth, $1.25, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The first edition of this valuable handbook for laymen met with a prompt and wide acceptance and was soon exhausted. A constant and growing demand has required a second edition, in which the author has revised and enlarged his book and the publishers have issued it in a convenient and attractive volume.

Having for years been associated with the late Dr. Trudeau in his tuberculosis work at Saranac Lake, New York, Dr. Brown knows the problems which confront the consumptive who would live a life that shall make him an acceptable member of society, rather than a person to be shunned. If a permanent cure is to be effected it is necessary that the patient shall learn how to cooperate intelligently with those who prescribe and care

for him. This handbook gives in brief and simple form all that is necessary for the patient to know in order to render such co-operation.

Dr. Brown has no fads to advocate nor any pet theories to exploit. He has written in simple language, that is clearly intelligible to the average layman, just the things which his long experience has proved to be best for the welfare of the patient and most necessary for him to know if he would expedite his own permanent recovery and at the same time safeguard those about him.

This book is an ideal one to put into the hands of consumptives, and of those who have to care for them.

A Practical Treatise on Infant Feeding and Allied Topics, for Physicians and Students, by Harry Lowenburg, A. M., M. D. Illustrated with 64 engravings and 30 Original Full Page Plates, 11 of which are in colors. F. A. Davis Co., Publishers, Philadelphia, 1916. Price, $3.00.

In this volume the author presents in an interesting way his own views and his own methods. As he says in the preface: "The contents will be found to be largely clinical and practical, and to embody the author's personal experience with the problems presented." This gives a personal touch to the various chapters, which adds greatly to the interest and pleasure of reading. The variety of topics considered is indicated by the following table of contents:

Breast Feeding, Artificial Feeding, Infantile Atrophy, Rickets, Scurvy, Vomiting, Constipation, Diarrhea, Spasmophilia, Exudative Diathesis, Pylorie Obstruction, Special Topics.

Dr. Lowenburg takes a conservative position in considering the subject of Infant Feeding and combines the merits of what may be called for convenience the American and the German methods.

The volume is eminently "safe and sane" and may be placed in the hands of the student or young practitioner and yet the chapters are full of sound clinical observation which will be profitable and enjoyable to the older practitioner or to the pediatatrician. A. W. M.

Diseases of the Nervous System: A Text-Book of Neurology and Psychiatry. By Smith Ely Jelliffe, M. D., Ph. D., Adjunct Professor of Diseases of the Mind and Nervous System, New York Post-Graduate Medical School and Hospital, and William A. White, M. D., Superintendent of the Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases, Georgetown University; Professor of Mental Diseases, George Washington University, and Lecturer on Phychiatry, U. S. Army and U. S. Navy Medical Schools. Octavo, 796 pages, with 331 engravings and 11 plates. Cloth, $6.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1915.

In this text-book the authors have described the disease of the nervous system in the order of its evolutionary development, beginning with those biophysical and biochemical syndromes which are indicative of disturbances at the phylogenetically lowest, the vegetative level of the nervous system. They have then taken up the disorders more closely confined within the sensorimotor systems, and have concluded by the discussion of those diseases which more clearly involve the psychical processes. Thus the reader passes in orderly progression from the purely biophysical levels of unconscious automatic activities to the highest psychical levels of conscious social adjustment, which is the distinctive characteristic of man. It has been difficult to group all diseases of the nervous system strictly by means of this scheme, chiefly because many of them, if not all, spread over the borders of one level to other levels. The general advantages of such an arrangement, however, are great, and permit of an orderly perspective of the functions and disorders of the nervous system. Such a comprehensive plan for a text-book on nervous diseases is here attempted for the first time.

A distinctive feature of this work lies in the fact that the authors have tried to make it a connected story from cover to cover, embracing the whole realm of nervous diseases,—not two books, one on neurology and one on psychiatry, merely compassed by one binding. To this end the various elements of a given problem are brought together and treated consecutively; as for example the syphilitic, the arteriosclerotic and the toxic syndromes. These problems present themselves in this way in practice, and any independent and disconnected consideration of these elements tends to further an erroneous belief in the separateness and autonomy of the different reacting levels, which are in reality so closely connected as to be virtually one. Such an arrangement prevents a comprehensive grasp of the meaning of disorders of the nervous system that this work aims to convey.

In recent years great advances have taken place in knowledge relative to the two extremes of the nervous system, the vegetative and the psychical. The new facts gathered relative to the internal secretions and of their effects, acting through the medium of the vegetative nervous system, has given us our most comprehensive idea of the relationship between these two great groups of reactions so long considered under the unsatisfactory titles of the functional and organic. Therefore, in order to attain clearness and unity of treatment, the authors have expressed reaction, either in physicochemical or in psychological terms, as seemed best. If their efforts have been successful, the descriptions of well known diseases should gain a new vitality and make a deeper impression on the memory.

Throughout the work the authors have aimed at practically, and have endeavored to avoid limiting hypotheses, in the belief that it is safer to adhere to the objective findings. Nevertheless they have not been entirely satisfied with descriptions, but have aimed at interpretations. They have tried to avoid the analysis of the meaning of words in order to understand the actions of things, and have not hesitated; therefore, to formulate certain interpretations in psychological terms, without actually committing themselves to philosophical theories or even to a restricted philosophical position. The criterion has been the reviewing of facts as observed in the writers' own personal experience.

Blood Pressure: Its Clinical Applications. Second Edition, Revised and Enlarged. By George W. Norris, A.B., M.D., Assistant Professor of Medicine in the University of Pennsylvania; Visiting Physician to the Pennsylvania Hospital; Assistant Visiting Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia. Octavo, 424 pages, with 102 engravings and 1 colored plate. Cloth, $3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

At the time of the first appearance of Dr. Norris's book, the Reviewer commented favorably on it. A second edition is before us and we see no reason to change our opinion. The author has gathered together a wealth of material which he has so condensed and arranged that the book is a reference work for Blood-Pressure.

This present edition has had some additions which add to the value of the book. Dr. J. Harold Austin has contributed chapters on Physiology and upon Venous Blood-Pressure.

The Reviewer affirms again that this, to his mind, is the best book on the subject of Blood-Pressure which has thus far appeared. The view-point of the author is conservative and he is careful to avoid too much hypothesis in explaining certain phenomena.

ABSTRACTS

Clinical Investigations on the Dependence of Intraocular Tension Upon the Quality of the Blood. Hertel, E., Strassburg, (von Graefe's Arch. f. Ophth., 90, p. 309), proved experimentally, that in man, as in animals, the normal, but also the pathologically increased and decreased, intraocular pressure can be very much influenced by alteration of the quality of the blood. Hence it may be inferred, that the constancy of intraocular tension requires constancy of composition of the blood and that perhaps certain deviations of ocular tension from the normal may be due to disturbances of blood mixture. This explains the hypotony, observed by Heine and Krause in diabetic coma, in which the increased concentration of the blood by sugar and acetone, oxybutyric acid, aceto-acetic acid, corresponds to the artificial augmented concentration by the introduction of sugar or salt in the experiments.

In studying the blood concentration in patients with glaucomatous rise of tension, H. selected more youthful individuals, under 42, for excluding distributing complications often found in older glaucomatous patients, as diseases of the bloodvessels, heart, kidneys, etc., which not rarely cause considerable alterations of the concentration of the blood, while the frequently increased arterial blood pressure in these affections has a decided influence on ocular tension. He found that the concentration of the blood in his glaucoma patients was essentially lower than in other patients who showed no increase of intraocular tension. From this H. concludes that the decreased concentration of the blood ascertained in glaucoma, if confirmed by further investigations, may be a predisposing element to hypertony of the eye. A case is reported of a decidedly higher concentration of the blood of a man, aged 38, during an attack of glaucoma than before, by alteration of the molecular and albuminous concentration. This concentration may have been due to vasomotor changes from psychical influences as observed by Grawitz. H. says that if we consider that glaucomatous attacks not rarely are elicited, like in his case, by psychical causes or by sudden cooling, the thickening of the blood during a glaucomatous attack, as in his patient, does not seem inconceivable. In support of this view he mentions the favorable effect of warm baths and venesection in glaucoma by thinning the blood. H. used the injections of concentrated salt solutions with great advantage for rapidly decreasing the intraocular tension in glaucoma and thus created better conditions for operation.

C. Z.

Lymphocytosis and Eye Injuries. Franke, E., and Hack, R., Hirschberg, (von Graefe's Arch. f. Ophth., 89, p. 450), examined 40 cases of injuries of the eyes, 37 older and 3 recent, with regard to lymphocytosis, with the result that lymphocytosis is found in a large series of injuries of the eyes, in which the injured eye had remained quiet for years and in which the danger of sympathetic ophthalmitis seems excluded. In concordance with the experiences of von Hoesslin and Sauer, who never missed symptoms of neurasthenia in cases of lymphocytosis, the present authors concluded that the lymphocytosis is not a consequence of the eye injury but of simultaneous neurasthenia. Hence the presence of lymphocytosis may be valuable for the distinction of mere simulation from neurasthenic conditions. C. Z.

A Simple Plastoscope. Zoth, O. (From the Physiological Institute in the University of Graz. Zeit. f. Sinnesphys. 49, p. 85.) The old method of artists of looking at plane pictures with one eye through the hand closed like a tube has three advantages: greater brightness and distinctness and especially plastic appearance. The two first advantages can easily be explained by the exclusion of lateral and perverse light. Z. explains the greater plasticity by the exclusion of the surroundings of the picture. If they are eliminated, the motives in the picture for a conception of the represented third dimension are fully and without disturbance called into action and produce the surprising plastic effect. On this principle Z. constructed his plastoscope for this purpose, which consists of a tube 8 cm. long, blackened inside, with an eye piece shaped for attachment to the orbit.

C. Z.

Gonorrheal Iritis. Keppeler, E. (From the eye clinic of Prof. G. von Schleich in the University of Tübingen. Klinische Monatsblätter für Augenheilkunde, 54, p. 307), gives a splendid collective report from literature on the pathogenesis, clinical aspect, prognosis, and treatment of gonorrheal iritis, in connection with five cases of his own, in which there was no doubt about the etiological diagnosis. Characteristic of gonorrheal iritis are the sudden onset with violent irritation and

intense pain, a gelatinous coagulating exudation in the anterior chamber, favorable course, but inclination to relapses. Also the ciliary body and chorioid are mostly diseased, as proven by the opacities of the vitreous in the severe cases. It is very rare in acute gonorrhea. Most frequently affections of the joints appear first, as a sign that the gonorrhea has become a general disease. The diathesis, the whole physical constitution of gonorrheal individuals, may favor the spreading of the originally local gonorrhea to the whole organism, and especially the endothelial membranes of the body. Thus the still perfectly occult rheumatic constitution or the resistance lowered by any noxious influences of the organism may play a part. Whether especially virulent strains of gonococci give rise to the metastases or whether in gonorrheal iritis a mixed infection, e. g., by staphylococci, occurs, is still undecided.

Keppeler considers arthigon, a palyvalent vaccine, manufactured according to the directions of Burck and Schering from numerous strains of gonococci, as an important diagnostic means for gonorrheal iritis. In perfectly latent gonorrheal affections injections of 0.02 arthigon rekindles the old symptoms with abundance of gonococci.

Gonococcal vaccine or antigonococcal serum may, according to the reported favorable results, be indicated as specific therapy. C. Z.

Further Remarks on the Etiology of Senile Cataract. Schanz, F., Dresden, (von Graefe's Arch. f. Ophth., 89, p. 556), refers to the experiments of Chalupecky, Herzog, Wildmark and von Hess, who produced opacities of the lens by exposing guinea pigs to the quartz lamp. Light changes the structure of albumen, so that easily soluble albumen becomes less soluble, as can be shown chemically by the nitroprussid reaction. From the less soluble albumen, coagulated albumen is formed, which is perceived as opacity. According to Schanz the changes produced in the living animal by Chalupecky with the quartz lamp could only be brought about by rays also contained in daylight, especially the blue light of the sky, of which the plains are particularly rich, in consequence of the diffusion of the light in the atmosphere. C. Z.

The Cause of Gastric Ulcer. Burge, W. E. and Burge, E. L. (Jour. Amer. Med. Assoc., 1916, LXVI, 998) have been able to produce gastric ulcer by reducing the oxidative processes of the cells of the gastric mucosa. They found that in the presence of atomic oxygen no digestion of the gastric mucosa was caused by a pepsin-hydrochloric acid mixture, whereas if no oxygen were present the mucosa was readily digested. On this basis they explain the fact that gastric ulcer occurs following embolism or endarteritis obliterans of a small artery in the gastric mucous membrane. They say that in view of the fact that pepsin is easily destroyed by oxidation and that the cells of the gastric mucosa possess oxidative properties, the reason why the mucosa is not digested by the pepsin-hydrochloric acid in the stomach is that the pepsin is rendered inert by the oxidative processes of the normal cells. Any condition which lowers the oxidative power of the cells favors the development of ulcer.

Acute Hodgkin's Disease. The most noticeable features (considering the ultimate diagnosis) in Whittington's case (Quarterly Journal of Medicine, London, 1916, IX, No. 34) and the ones which led observers astray were as follows: The acute onset with symptoms and signs suggestive of peritonitis; the subsequent remarkable resemblance of the case to typhoid; the general resemblance to an acute infective fever; the relapsing course in which there were not only relapses in pyrexia but also a curious periodicity of symptoms and signs; signs suggesting portal obstruction, and lastly (and very important) the entire absence of enlarged external glands. The diagnosis was not made until after the necropsy. The whole aspect of the case seems to support the view that Hodgkin's disease is due to some infective organism, which in this case was particularly virulent, and which had its chief habitat in the retroperitoneal glands and spleen.—*Jour. Amer. Med. Association.*

Disease of the Gold Coast Called "Bungpagga."—This appears to be a micro-organismal infection which produces a neurotoxic effect as well as a local reaction. In every pus slide examined by Patton (Brit. Med. Jour., April 1, 1916) he found a heavy infection of saccharomyces. Cultures showed a true fungus growth. Patton is of the opinion that grain becomes infected in the bin, the people eat the grain raw, and being usually constipated, their intestines are secondary incubators. The yeast cells are probably absorbed from the intestine somewhat in the same way as fat is by migratory leukocytes, and hence into the general circulation. The definite incubation period appears to be three days, during which there is malaise, headache, a sense of fatigue, anorexia, intense thirst and constipation. The onset is sudden; rigors may usher in the attack. The temperature rises rapidly to 103 or so. There is extreme tenderness in the muscles. Within twelve hours painful tumors make their appearance in the affected muscles; the abscesses seem always to occur near their insertions. There may be only one nodule, or a crop. In some cases the distribution is bilaterally symmetrical. The tumors are deep seated; they are hard, nonfluctuating, very painful, with their long axes either in or parallel to the long axes of the muscles affected. They do not correspond to lymphatic glands. Each tumor is about the size of a hen's egg. They are at first hard and firm, and are easily visible and palpable; later on, if the patient survives, they become slightly soft, but never flabby. Usually, in mild cases, the abscesses point after some weeks, and burst if unopened. As a rule, the fewer the nodules the better the prognosis. If the patient survives the acute stage he stands a good chance of recovery. The deaths usually occur within the first week, the third and sixth days seeming to be the most critical. Even during convalescence (for two months or more) the patient exhibits an occasional febrile reaction. —*Jour. Amer. Med. Assoc.*

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ORIGINAL ARTICLES

MANAGEMENT OF THE EMERGENCY SURGICAL CASE.

BY EUGENE A. SMITH, M. D.,

MILWAUKEE.

Milwaukee stands first in the manufacture of machinery, leather, beer, has more shipping than Chicago, has several railroads, thousands of automobiles and motorcycles, and as a result there are hundreds of thousands of accidents yearly, varying from small cuts and contusions to crushes of a large part of the body. A large majority of these accidents are from our industrial concerns, and the state of Wisconsin has decided that the responsibility for these accidents must be assumed by the employers, and requires the employer to pay for permanent injuries, for all the doctor and hospital bills incurred, and to furnish compensation for the actual time lost. The employer recognizing his obligation has in a business-like way made preparation for meeting it. He is paying over two million dollars annually in this state to the liability insurance companies to employ all means to return the patient to a maximum of usefulness. The insurance companies turn to the medical profession to help them fulfil their contract with the employer, and in a majority of instances, do not find the best help that they can get for their money. The reason for this is, that the taking care of emergency-surgery cases is done by physicians living in the regions where the accidents occur. These physicians as a rule are in general practice, live on the city outskirts, in the factory districts, and, being in general practice, can not be depended upon for immediate help when an accident occurs, and when they do meet a case they are unqualified to take care of it, if it is a severe injury, as they have had no special training to fit them for this work.

The surgery of accidents is as much a specialty as the surgery of the chest or brain, and the reason that the average physician is incompetent and unprepared to take care of these cases, is largely because he does not see enough of them, numerically, to enable him to study them. How many physicians and surgeons have been summoned to take care of an accident case in a factory, in a patient's house or at their own offices, and have found conditions satisfactory for doing this work? In fact, how many surgeons in any part of the city have a surgery for treating ordinary wounds and injuries?

I do not believe there are five surgeries outside of hospitals in the whole down-town district. If a minor injury case is taken to a general hospital, there is an ambulance charge, an operating room charge, and a charge for dressing, besides your own bill as surgeon, that make the expense prohibitive.

We must remember that the charges for taking care of a workingman must be those that we would make to the man if he were paying the bill himself. Charge a millionaire a thousand dollars for taking care of his broken arm, and he will pay it; charge a millionaire corporation a thousand dollars for taking care of a workingman's arm and you will lose your client.

It is a well-known fact that Milwaukee has not enough hospital facilities, and I suppose we must wait until various religious bodies, or public-spirited women, and the philanthropists, who wish to build a monument to themselves, get ready to endow us with more hospitals. It is certain that no amount of irresolute action on the part of laymen or professional men is going to secure for Milwaukee properly built and maintained hospitals. Therefore, a physician on arriving at the scene of accident must meet the following conditions. He immediately sees the broken individual lying in a more or less filthy condition, in corresponding surroundings, and this individual must at once be removed. Anywhere from five to one hundred working men may be standing around watching the unfortunate, and their time is worth from twenty cents to one dollar per hour to the employer. The physician knows that the Johnston Emergency Hospital is not allowed to give help

to industrial cases. He, therefore, directs that the central police station be called and, depending upon the quarter of the town he is in, asks for the Bay View, South Side, or Central wagon to be sent immediately to the scene of accident.

Milwaukee's taxpayers send this wagon which the employer is paying the insurance company to furnish. The physician then calls up the various hospitals, hunting for a bed, for operating room, and nursing for the broken individual. Usually he must meet with refusal after refusal to take these cases in, as the hospitals are full, or they do not know the physician in charge, and the staff has first call upon the beds, and the operating rooms are engaged for hours ahead, or there is an epidemic filling the hospitals or they do not want these emergency cases as they require instant services, causing much commotion, require more nursing, and the allowance for their keep provides for only a ward bed, which, as you know, is always run by hospitals at or below cost.

What is the reason for this condition of affairs? It is not far to seek. This work again is special work, should be done by men devoting their time to it exclusively, all of their time, for taking care of cases nights as well as days, and it behooves such men to make their demands heard, to lay their lines beforehand, visiting the hospital authorities, making arrangements for the instant admission and care of injured individuals and seeing to it that the hospital not only gives them promises for such care, but is large and well-equipped enough to deliver the goods.

Where do these cases go? There is not such an hospital in Milwaukee. They are sandwiched in here and there in the various hospitals. I have taken them to St. Mary's Hospital because it is large enough so that I can always get a case in there. The case is well cared for, but on occasion if I wish to use their X-ray laboratory, I find it in charge of and owned by somebody who is not available; neither is it sufficient. Supposing I wish to set a femur, under anaesthesia, under the fluorescent screen, I must take the case from St. Mary's Hospital or St. Joseph's, or the Milwaukee Hospital to Mt. Sinai or to my office, as Mt. Sinai Hospital is usually full.

For twenty years I have been contending for the care of these emergency surgical cases, and I have had to instal in my office practically all the appliances that I should find in a hospital.

It is easy enough to criticize or to pick flaws in any system without suggesting a remedy. I, therefore, wish to outline a scheme of preparedness for the handling of these cases. They are turned over to us in good faith by the employer or their sponsors who have paid the insurance company for their care in advance. I believe that the insurance companies would be money ahead if we were prepared to furnish them proper services, and for which they would gladly pay well, making a hospital self supporting. Let there be established in Bay View, in the Valley, at 15th and Burnham or Oklahoma avenues, in West Allis, in the northwest quarter of the city, and downtown; in short, wherever there is a large industrial center, a surgical hospital for the care of any accident case. This hospital of 10 to 30 beds, open day and night, must serve for a first aid station and also for the care of cases that are too badly injured to move. In some central portion of the city, let there be established a large surgical hospital to which the majority of these cases may be moved in a few days, after they are injured, if they are not to be taken to their homes. A small modern operating room, X-ray laboratory, rooms for surgical dressings, diet kitchens, and individual rooms for patients must be supplied under the immediate care of a male adult resident surgeon, and with an assistant bearing the same qualifications.

To secure the injured individual's return to a maximum of full usefulness in the least space of time, the following management should be employed in handling these cases. Secure an ambulance at once in charge of a capable driver who knows the good roads and avoids the bumps on the way to his hospital. Get your patient there as soon as possible with the least amount of noise, exhibition of anxiety on the part of bystanders and caretakers, with the least amount of fuss, stimulating and bolstering up the patient by quiet, efficient, confidence-inspiring service, in every way making him forget the shock and horror of the accident, remembering that such an occasion is unusual and depressing to him in the extreme. Get acquainted with him as rapidly as possible, as you are a stranger to him in his time of need; in other words, making him feel that he is fortunate in having you to take care of him, and that everything is going to be all right, without talking him to death in order to convince him of it, so that by the time he gets to the hospital he knows where he is going, he is confident that you are taking him to a good place, and do not at a time when

he is least able to stand shocking sights throw him into a ward full of groaning, bandaged and maimed individuals who have preceded him, but give him a room by himself. Let me at once say that a sick dog or bird naturally seeks seclusion and men should have like treatment. Give him all the nursing he needs but not too much; not too little; not green pupil nurses. The repair of any major injuries to the body should be made much later. The first aid dressing can be gently and efficiently applied, with a checking of any devitalizing hemorrhages, the first straightening of dislocated parts has been done by the clever ambulance man before moving him, and after assuring yourself that fractures, dislocations, and crushes are not interfering with the circulation, there must be nothing done at this time further to disturb or depress this patient, and everything must be supplied in his surroundings and care to give him as much a sense of security, friendliness, and well-being as he is able to appreciate.

His family must be absolutely ruled out although they must be exactly and immediately told of his condition. Do not let the family sit at home with dinner or supper on the table waiting for the head of the family or under the fear of the recital of some fellow workman without knowing how badly injured the patient is, or where he is. The wife or husband of the patient, of course under control, must be immediately admitted to the patient's side but no other visitors for several days until the patient's injuries have left him without pain and he is in the need of pleasant diversion. After that the rest of the family and a few chosen friends, bent on comforting the patient and not on sight-seeing, may profitably be admitted to the sick room, and each day afterwards at the convenience of the hospital authorities.

As soon as it is safe for the chief surgeon to make a complete examination of the injured patient, he should decide from the nature of the injuries which members of the staff or which representatives of the various specialties should be called to aid in the diagnosis and treatment of this case, remembering that the diseased conditions from which the patient was suffering before the accident must be taken care of as well. This is a good time to diagnose, treat, and tabulate occupational diseases. From such a surgeon one could expect valuable statistics as to measures that might be adopted by factories for the prevention of similar accidents and occupational diseases. The welfare-work which prevails in many factories, at the expense of the employers, would be greatly helped by information obtained from these patients, who are disposed at this time to discuss their occupation, its advantages and disadvantages.

A complete examination having been made by the chief surgeon, the services of the assistant surgeon, roentgenologist, neurologist, orthopedist, eye, ear, nose and throat men, as well as the internist whose work in heart, lungs, blood pressure, gastro-intestinal conditions is so useful, the genito-urinary surgeon to meet the conditions of which he is master, these various men as they are needed in individual cases must be summoned to help.

The general practitioner must be a jack-of-all-trades, and therefore, master of few of them. Long may he live to bear the brunt of the most disagreeable side of practice, and great may his reward be in heaven, for if he does not turn crooked, he will never get his reward on earth. Let him feel, however, that he may take his emergency case to one of these first aid stations and get every help for it that it requires. In the various dressing rooms and surgeries of these stations where we must take our patients, because we have not such places in our homes or office, cuts, burns, and contusions will receive immediate care and soothing dressings, and if possible they may then be sent home.

When the patient gets to the point where his more severe injuries must be taken care of he will go through the ordeal with the minimum of discomfort and shock.

It is some two years since I read a paper before this Society on the proper way to set fractures and dislocations. I have changed my mind about the matter in that time. Instead of saying that all fractures and dislocations should be set under the fluorescent screen I wish now to go on record as saying that all parts of the body which have received a blow sufficient to injure the bony framework or joints, should be, as soon as it is deemed advisable, subjected to examination under the fluorescent screen or by means of X-ray plates. I believe that a larger number of crushed fingers and toes will show fractures than is generally supposed or than we are able to elicit by jerking and pulling these injured parts about with our hands or machinery. I am now prepared to say that I consider that any patient who has a fracture set by a surgeon, except under the X-ray

screen has every right to bring suit against his surgeon for mal-practice, for it has not been done properly.

To repeat a few more statements: Under the screen, any displacements of the bones are plainly seen and under anaesthesia can be perfectly reduced, and when perfectly reduced there is a minimum of deformity, there is a minimum of time lost in getting well, there is a maximum of usefulness to be obtained, there is a minimum of pain and discomfort and worry to be sustained by both patient and surgeon, and the surgeon knowing he has done as well as can possibly be done, and having seen that the bones are perfectly apposed, shows, in his bearing, his confidence in his work, and the patient, at the most sensitive time of his life, with anxiously inquiring eyes, is quick to see his surgeon's confidence, to measure it and be comforted by it. After the setting of fractures and dislocations under the screen, make your X-ray plate, as a permanent record for your own guidance, and incontrovertible proof that you have set the fragments properly. You need then have no fear either that the patient is not going to get a maximum of use from the injured part, or that he stands any chances in a mistaken mal-practice suit. I believe, in my scheme for the care of emergency cases that there would be a minimum of malingering, traumatic neurasthenia, and hysteria, and of traumatic appendicitis and hernia. Undoubtedly the time is coming soon when large employers of labor will require a physical examination before hiring men, and the making of a record of the various infirmities noted in such examination by their surgeon. With this record and with an examination made by surgeons, internists, and by the especially important neurologist, undeserving cases feigning injury would be made an example of, and a terror to their kind; the status of hernia would be established; there would be less cause of, as well as cause for, traumatic neurasthenia, hysteria and allied conditions, and a much better chance for recovery, especially for the true neuroses.

I have the good fortune to be associated with a first class internist and a first class neurologist, and I have experienced much relief after their examinations of these injured people in being able to say to a patient's employer or insurance company that there has been no examination or precaution overlooked in handling these cases, and that full records in duplicate are on file, backing me up, and that there is no question, in a majority of cases, as to the exact status of the patient.

There has been a remarkable change in the attitude of the insurance companies in the last few years and not alone in Wisconsin, for with the exception of a few unimportant companies operating on a shoe-string, it is now no longer a question of employing a cheap contract surgeon and hoping for the best kind of surgery. As far as possible the insurance companies nominate as good a surgeon as they can get to devote himself to this kind of work, and ask the employer to call him in case of accident.

They are giving large discretionary powers to such men, pay them on the average, for his year's work very fair fees and he is treated with every respect and consideration. They realize that this treatment for their cases means the speediest recovery, with the least amount of mutilation, and at an expenditure of the least amount of compensation for the patient's lost time, with a maximum of good feeling for the good results and recovery on both the part of patient and employer. In settling their cases, the insurance companies now come with clean hands before the Industrial Commission of the State. They cannot settle the case with an employee unless the Industrial Commission has passed upon it, and for lost time, lost or mutilated limbs or organs they must pay up in cold cash, and explain in mighty good reasons the necessity for such loss.

Wisconsin framed a law authorizing the appointment of an Industrial Commission for the handling of these cases. I have watched the operation of this law and believe that it is most excellent, but it has a fault which can and must be remedied. The men appointed to the Commission are laymen. The members of the Commission become severally very familiar with the injuries of individuals after they are healed up, and the Commissioners are far above the average in intelligence, administrative and discretionary ability, but do not know anything of anatomy, physiology, surgery, pathology, or the other various sciences of which a man must be master before he can judge these injuries. I can only say that at least one commissioner should be a physician and surgeon of broad acquirements and outlook. This physician should act as an advisory physician or surgeon to the Commission. It should be his duty to inspect claimants and to decide which specialist was best fitted to make the physical examination of the

claimant's injuries. Upon the result of this examination final awards should be based if they are to be equitable to patient and employer. Rather than do a pecuniary wrong to the patient who must carry the result of his accident, and to his family who must bear some of the results in a diminished income for life, and to the employer whose insurance rates are based upon the cost of carrying his risk, let the state pay a thoroughly competent surgical examiner, or better, a tribunal of three such men instead of the present method of examining for the Commission. I have seen men who have been injured ordered by the Commission, in the presence of surgeons and the riff-raff of the court room, to bare their limbs and other parts of their body that a layman Commissioner might see how far he thought either the patient was injured or the testimony of the surgeons had been correct. I do not know why the law permits this, but I cannot believe that it is right. On the other hand no one who watches the working of the Industrial Commission can fail to be struck by the earnest, attentive, inquiring anxiety of the individual gentlemen forming the Commission.

There is constant intercourse between the Commissioners, patient's employers, and insurance companies and why there has not been some effort or suggestion that has given us adequate emergency hospital facilities and trained emergency surgeons for Wisconsin, I cannot understand. I believe that it would be a good thing for the profession at large and for a committee in particular to look into this matter. There seems to be on the part of the majority a shrinking or fear of emergency work. Imagine our plight as physicians and surgeons if we should really get into a war that would demand professional services, at the front or at home in military hospitals. Ingenuity and inventiveness, in short, a maximum of mechanical resourcefulness is demanded every minute from the man in this position.

Undoubtedly hundreds of thousands of lives must be lost in such a war, as a result of the inefficiency of a body of men such as our profession is: unequipped for the handling of a class of cases which they have always avoided and refrained from inquiring into, from distaste or dread, and the nation knowing nothing of this ignorance of ours in case of war is surely going to turn to us and will expect us to equit ourselves with credit.

Under the new bill before Congress, a call is soon to be made upon the physicians and surgeons of all the states of the Union, in recruiting our national army, for surgeons to handle injuries from the battle-field. It is my hope that Milwaukee and all cities having many emergency surgical cases will at least benefit to the extent of the founding and maintaining of hospitals for the proper care of our injured citizens, and I have heard that many of our civil surgeons are offering to take up this work of preparedness.

PURPOSE OF BILL ON CRIMINOLOGY.

The general purpose of the Bill is to lesson and prevent crime, pauperism and defectiveness by the best methods known to science and sociology. In addition to this general scope of the bill, there are some direct ends in view:

1. To gain more trustworthy knowledge of social evils. Such knowledge would furnish a basis for modifying defective laws, adapting them to present conditions.

2. To furnish a basis for methods of reform, and in addition seek, through knowledge gained by scientific study, to protect the weak (especially the young) in advance *before* they have gone wrong, and not *after* they have fallen and become tainted, which is the great defect of most schemes of reform.

3. To find whether or not there are any physical and mental characteristics that distinguish habitual from occasional criminals. Such knowledge would enable the community to protect itself in advance from habitual criminals and assist prison officials in preventing them from contaminating other criminals.

4. Exhaustive study of single typical criminals, which represent a large number, will give definite knowledge as to just how men become criminals and to what extent their surroundings influence them as compared with their inward natures. This would make possible a rational application of remedies for these evils.

5. More exact knowledge of the abnormal classes will enable us to manage them better in institutions. Such studies will bring men of better education and training in control of the institutions, and increase interest in the *professional* study of these classes, which the American Bar Association emphasized, when endorsing the work.

6. To summarize and combine results already gathered by City, State and Federal institutions and governments, encouraging uniformity of method in collecting data and making such data useful generally.

7. To lesson the enormous expense to governments of the abnormal classes by study of the *causes* of the evils that involve such expense.

One reason why so many professional organizations dealing first hand with some phase of this work support this measure is that they think it is time that governments begin a scientific study of those social evils which are their greatest enemies. Many worthy efforts are being made to lesson social evils, but they are mostly palliative, and do not go to the root of the matter.—*Exchange.*

DEEP SUPPURATIONS OF THE NECK WITH REPORT OF AN EXTRAORDINARY CASE.

BY JAMES H. FOWLER, M. D.,

LANCASTER.

Inflammatory processes of varying grades are met with in the neck more often than in any other portion of the body.

These vary in severity from the mild localized abscess with no constitutional symptoms and no worse results than pain and the necessity of a safe local incision and a little scar, to those deep extensive phlegmons, with extreme general sepsis, which threaten or even destroy life.

While the great majority of these inflammations are mild, and most of them undergo resolution without even having reached the stage of suppuration, any deep inflammatory process in the neck must be considered as a potential menace to the life of the patient and treated as such.

Whether a given inflammation in this region shall be mild or severe, circumscribed or extensive, a menace to life or a temporary discomfort, depends upon one or more of the following three things:

First. The micro-organism to which the infection is due.

Second. The location of the primary focus with relation to certain well marked and constant fasciae planes and connective tissue spaces of the neck.

Third. The group or groups of lympatic glands primarily involved and their relation to, and communication with, other well marked and constant groups of lymphatics.

The fasciae of the neck consist of two distinct layers: a deep fascia and a separate aponeurotic layer covering the muscles.

The deep fascia is a connective tissue sheath which begins at the base of the skull, to which it is attached, and extends downward into the thorax and laterally joins the sheath of the great vessels, covering the prevertebra muscles.

The neck aponeurosis is a firm connective tissue layer extending from the hyoid bone to a point opposite the isthmus of the thyroid, where it separates into two laminae which are attached respectively to the anterior and posterior borders of the sternum, enclosing a small space filled with loose connective tissue. Laterally, above the middle tendinus portion of the omo-hyoid muscle, this layer is attached to, and blends with, the sheath of the great vessels. Below this point it surrounds the body of the omo-hyoid and passes outward over the sheath of the great vessels and beneath the sheath of the sterno-mastoid muscle. Above the hyoid bone a firm layer of connective tissue passes upward to the border of the inferior maxilla and laterally outward over the sterno-mastoid forming the connective tissue capsule of the submaxillary gland.

Between these various layers of fascia, and in relation to the blood vessels, trachea and oesophagus are certain spaces filled with loose connective tissues, a knowledge of which is of vital importance in determining the probable gravity of any deep suppurative process in the neck.

These spaces are five in number. (A) The retro-visceral. (B) The pre-visceral. (C) The space for the great vessels. (D) The supra-sternal intra-aponeurotic space. (E) The capsule of the sub-maxillary gland.

The fourth of these, because inflammations in it, though severe and painful, are seldom dangerous and always easy of access, will need no further consideration.

The Retro-Visceral Space lies between the pharynx and oesophagus in front and the anterior surface of the spinal column behind. It begins at the base of the skull and extends downward into the thorax as far as the ninth or tenth dorsal vertebrae. Laterally it extends to the sheath of the great vessels.

The Previsceral Space lies between the anterior surface of the trachea and the posterior surface of the muscles which ascend to attachments along the hyoid bone. It is limited in front by the neck aponeurosis and extends laterally to the sheath of the great vessels and downward into the thorax.

The Space Surrounding the Great Vessels separates the anterior and posterior spaces. It begins above under the petrous portion of the temporal bone and extends downward into the thorax where it communicates through a common cavity with the anterior and posterior spaces. This space is of great importance in acute inflammatory processes because of its firm walls, the great vessels it contains and the large number of its lymphatic

vessels and glands, and its communication in the thorax with the retro- and pre-visceral spaces.

It should also be remembered that pus, burrowing downward from any of the above free spaces, may find its way along the sheaths of the great vessels and nerves and reach the axilla; the platysma forming a barrier so resistant that it is easier for the pus to take this course than to come to the surface above the clavicle.

The Lymph Glands of the Neck may be grouped as follows:

First. *Sub-Maxillary.* Numerous, lying in the connective tissues of the sub-maxillary triangle. They receive the lymph from the face, interior of the mouth, teeth, tongue, jaw, and larynx.

Second. *Sub-Mental.* Few in number, lying in the connective tissue beneath the chin and receiving lymph from the lower lip, chin, and anterior portion of the tongue.

Third. *Superficial Cervical.* Five or six in number, lying on the surface of the sterno-mastoid and along its posterior border. They receive lymph from skin of neck and external ear, are covered by the platysma myoides and communicate through lymph channels with the deep glands of the neck.

Fourth. *The Deep Glands of the Neck.* These are numerous, fifteen to twenty or more in number, and lie in the connective tissue about the great vessels from the base of the skull to the supra clavicular fossa. These glands may be divided into an upper and a lower set. The upper set is represented by one or more nodes lying upon the bifurcation of the common carotid and receive lymph from the palate, nasal fossae, pharynx, larynx, and tonsils. The lower set lie along the lower portion of the great vessels, in the supraclavicular fossa, upon the scaleni muscles and along the cords of the brachial plexus. They receive lymph from the upper chain, neighboring skin, trachea, thyroid gland, etc., and communicate with lymphatics of axilla and thoracic wall.

Acute suppurative processes in the neck occur more frequently in childhood and early adult life because the causes leading to them are more common at this period than later. These causes may be grouped into the following classes:

First. Infectious processes in the skin of the scalp and face—wounds, eczemas, impetigos, pediculosis, etc.

Second. Infectious processes within the mouth —caries of teeth, necrosis of jaw, injuries, stomatitis, tonsillitis, pharyngitis.

Third. Inflammation of the salivary glands.

Fourth. Suppurations in the middle ear and mastoid cells and antrum.

Fifth. The acute infectious diseases — diphtheria, scarlet fever, typhoid fever, etc.

Sixth. Tuberculous adenitis is also a cause but the suppuration produced by this should not be classed with these dealt with in this paper.

The bacterial cause of these infections is usually the streptococcus, staphylococcus pyogenes aureus or albus, but any pus producing bacillus or coccus may be and has been found.

Severe inflammatory processes in the neck, for reasons that are obvious, affect the sub-maxillary region in the great majority of cases. Next in frequency comes the space surrounding the great vessels and containing the deep lymph nodes and last the retro-visceral and pre-visceral spaces.

Abscess of the sub-maxillary space, if outside the capsule of the gland proper, is of little consequence and only potentially dangerous: if inside this capsule, the condition is grave and if not promptly relieved may cause death from septic poisoning.

The symptoms of such an inflammation are pain, chills, fever, inability to open the mouth, dyspnoea which may be extreme, dysphagia, dysphonia, foetid breath, coated tongue, sordes on teeth, etc.

The physical signs are a hard red swelling beneath the jaw on one side of the neck, the tongue is forced up against the roof of the mouth, the expression is anxious and there may be urgent dyspnoea and always great difficulty in swallowing. Some times all the tissues of the anterior of the neck become infiltrated, red, shining, and of a cartilaginous hardness, the head is thrown back, the dyspnoea becomes extreme, the temperature high (105 or 106), delirium and even coma supervene, and death may occur in a few hours if the condition is not relieved. To this condition the name Ludwig's Angina has been given; a term which I think should be interpreted as describing a degree of inflammation in this region rather than a separate condition.

Abscesses in the sub-maxillary triangle may, if untreated, rupture into the pharynx, trachea, externally or, rarely, through the floor of the mouth beneath the tongue. I have had one case which, though it did not rupture spontaneously, pointed and was incised under the tongue to the right of the median line. This abscess was extremely severe with high temperature, dyspnoea and profound sepsis.

Abscess in the connective tissue space around the great vessels is less common than in the sub-maxillary triangle, but the condition is more grave because of the proximity of the great vessels and the consequent danger of injury to these by erosion or operative procedure intended to relieve the trouble. This condition is characterized by the same septic symptoms as abscess in the sub-maxillary triangle, but the pain is usually less severe and there is less likely to be dyspnoea or the great difficulty in speaking or swallowing which so constantly characterizes the latter condition.

The physical signs are a brawny, hard, tender, painful swelling under the sterno-mastoid muscle: often the whole side of the neck is swollen and densely hard. Not infrequently the inflammatory process extends into the mouth, producing the same conditions as abscess of the sub-maxillary gland. The head is flexed toward the affected side in order to relieve tension of the sterno-mastoid and so decrease pressure on the abscess.

The process usually begins in the lymph nodules lying on the bifurcation of the common carotid, because of infection from inflammatory conditions of tonsils, pharynx, or nasal fossae, and from these extends through the communicating lymph vessels to the lower set of lymph glands. Left to itself, resolution may take place but more often an abscess forms. This abscess may point either anterior or posterior to the sterno-mastoid and break through platysma and skin or spread upward and downward beneath the platysma forming an extensive fluctuating swelling.

It may burrow downward along the sheath of the great vessels and appear in the axilla or rupture into the mediastinum or pleural cavity. Not infrequently it ruptures into the pharynx and rarely into the trachea. In either of the latter cases, if the collection of pus be large, there is grave danger of death from strangulation.

When, as occasionally happens, erosion of the great vessels occurs, the bleeding may take place into the abscess cavity, into the pharynx, larynx, pleural cavity, mediastinum, or, should an opening that may exist, externally.

Treatment of all deep suppurations of the neck is essentially surgical and operative procedure should not be delayed beyond the time necessary to demonstrate with a reasonable degree of certainty that an abscess exists. Having determined this point, the one desideratum is to reach the seat of infection by the shortest and safest route possible, evacuate it, and provide such ample drainage that no further burrowing will occur.

In suppurations confined to the pre-visceral, sub-maxillary and supra-sternal intra-aponeurotic spaces this is a comparatively simple matter as they are freely accessible and contain but few large vessels. Furthermore should these vessels be injured, hemorrhage from them may be controlled. In the retro-visceral space and the space about the great vessels, however, a very different problem confronts the surgeon.

Because of the inaccessibility of the former space and the great vessels contained in the latter, operations for the relief of an abscess in these regions becomes almost major in character.

Fortunately abscess in the retro-visceral space is rare. I have never seen a case and consequently when I began to write this paper I had no idea what I should do with one, should I meet it. Searching through half a dozen works on surgery I failed to find any clear cut answer to the question "What to do." I think, however, that if I could distinctly palpate the abscess at the back of the pharnyx, I should place the patient on the table, elevate the foot to an angle of 35 or 40 degrees, let his head hang off the end and, using my index finger as a guide, incise the abscess freely and trust to position to prevent aspiration of the pus into the larynx.

In case of abscess beneath the sterno-mastoid the object of course is to reach the purulent focus which is always in close proximity to, and frequently surrounds, the great vessels without injuring these vessels or their important branches.

Knowing the anatomy of the neck, this may seem an easy thing to do, but it is one thing to make this dissection through normal tissues or tissues modified only by the presence of hard tuberculous nodules, and another thing to do it with all the tissues infiltrated, their normal coloring gone, their relation disturbed, distances magnified, your field of operation constantly flooded with blood from millions of engorged vessels and the

danger ever present of a weakened vessel giving way and finding yourself confronted by an uncontrollable hemorrhage.

However, it must be done and the sooner it is done after the presence of suppuration is reasonably certain the less this work will be hampered by the above conditions. Even if no pus has formed you will have made an easy outlet for it when it shall have formed and so have averted the greatest danger which is from sepsis and the extension of the process by burrowing. The route selected must vary according to the conditions found in any given case: the principle is the same.

The case which I shall report to you today is that of Laurence Z., aged fifteen, a robust, previously healthy farmer boy. About three years previous to date of this trouble I enucleated both tonsils and removed adenoids. No vestige of tonsils remained so that tonsillitis as a cause of the trouble hereafter described is eliminated.

He came to my office Dec. 8th, 1914, complaining of pain at the left sub-maxillary articulation whenever he opened his mouth. Upon examination I found the first left inferior molar a little ulcerated and containing a large cavity. To the lingual side of the teeth was a hard swelling, apparently from thickening of the alveolar process which was causing his mother much uneasiness. This swelling was nearly the width of the teeth, of bony hardness and had existed about two years with no change in size. I sent him to a dentist who began treatment preparatory to filling the tooth. His pulse, temperature and respiration were normal.

Dec. 19th. Eleven days later he again came to my office complaining of "cold in the head," sore throat, stiffness of the neck and neuralgia-like pains in left jaw and side of face. The tooth was not painful or tender to pressure but the glands beneath the angle of the jaw were swollen and tender.

Temperature at five P. M., 103.4, pulse 108, respiration 24.

Gave Calomel gr. ¼ every two hours till four doses taken and capsule containing aspirin gr. 4, Pulv. Dov. gr. 2, every three hours and ordered him home and in bed.

Dec. 20. Reported better by telephone. Did not see him.

Dec. 21st. Called 11 A. M., found temperature 101.4, pulse 104, respiration 18. Found left parotid, left sub-maxillary lymph glands and superficial cervical lymph glands swollen and tender. There was oedema and intense redness of the mucous membrane of the anterior pillars, palate and pharyngeal wall. There was a free watery discharge from the nostrils. He complained of a burning sensation in the nose and nasal mucous membrane was red and oedematous.

Dec. 22. General condition unchanged in any important particular. At 9 A. M., temperature 101, pulse 108, respiration 18. Seemed a little more comfortable than previous day.

Dec. 23. In the region below the left mastoid process is a firm, inelastic swelling, extending to the junction of the middle with the lower one-third of the neck and posteriorly to the median line. The skin over this swelling is shiny and smooth but not discolored, rather whiter than normal. The swelling is only moderately tender. He does not complain of much pain but lies always on the affected side and sleeps much of the time. Has some difficulty in swallowing.

At 4 P. M., temperature 101.4, pulse 92, respiration 18.

Dec. 24. Swelling in neck about the same. Not very tender and not much pain but complains much of sore throat. Sleeps most of the time. At 2 P. M., temperature 102.6, pulse 100, respiration 20.

Dec. 25. Swelling in neck a little more pronounced but still no discoloration and no circumscribed point of tenderness. Swelling is plainly beneath sterno-mastoid and seems certain to suppurate. Complains today for the first time of sharp, excessively severe, stabbing pains in the neck. Lies continually on left side and is always drowsy.

At 7:30 P. M., temperature 102, pulse 92, respiration 20.

Dec. 26. At 8 A. M. boy's mother came to my office and reported him resting easily and asked if it would be right to leave him in the care of his sister while she attended the funeral of her husband's father. I permitted her to do so, saying I would not call till afternoon. Returning home at 11 A. M. she found the boy comfortable and his sister said he had slept quietly all morning.

At 12:30 he awoke from sleep in a wild delir-

ium, struggled and fought his father and screamed with pain in his neck. I was called and found temperature 107, pulse 160, respiration uncountable. Morph. Sulph. ¼, Hyoscine hydrochlor, 1/100 hypo. quieted the delirium in about twenty minutes and he again slept. On examining found little change in size of swelling but the color had changed to a dull purplish red and I thought I could detect a faint fluctuation.

At 3:30 P. M. saw him again with Dr. R. Godfrey. He was no longer delirious and temperature had dropped to 104.6 and pulse to 120. Puncture with a long hypodermic needle gave us a syringe full of thin, dark-brown, odorless fluid.

The tissues over the most prominent portion of the swelling were infiltrated with novocain—two syringe barrels full, about one drachm being used. An incision was then started an inch below the mastoid process and carried downward 2 inches along the posterior border of the sterno-mastoid muscle exposing its posterior border. A Kochers' director was then carefully worked forward under the muscle in the direction of the bifurcation of the carotid. After passing about 1½ inches resistance ceased and the director seemed to drop into a cavity of considerable depth. Turning the director once around on its axis I withdrew it, and a considerable quantity, one or two ounces, of thin dark-brown liquid mixed with grayish flocculi of necrotic material followed. I introduced a large blunt haemostat, worked it gently upward and downward, then partially opened and withdrew it. Another gush of the same brown fluid mixed with necrotic material followed.

I cleansed the neck of blood, waited a few minutes for oozing to stop, then turned to prepare a drain when a gush of dark venous blood came from the wound. A tampon of gauze packed to the bottom of the wound controlled this at once, and after waiting what we considered a safe time a large dry gauze dressing was applied.

When seen at 10 P. M. patient was resting comfortably. Temperature 101.4, pulse 90, respiration 20.

Dec. 27. Patient had a comfortable night and looked better generally. Dressed the wound and found there had been considerable drainage of the same sero-purulent fluid but no bleeding. Removed a portion of the tampon and reapplied gauze cotton dressing.

At 10 A. M., temperature 98.4, pulse 90, respiration 20.

At 10:30 P. M. breathing became very difficult and patient extremely restless. I was called and found temperature had risen to 104.4, pulse to 120 and respiration to 24.

I found the soft palate and the left anterior pillar enormously swollen and by passing a finger beyond these structures could feel an inward bulging of the lateral wall of the pharynx. I incised the oedematous palate and anterior pillar freely but found them leathery hard and only a small amount of blood followed the incisions. This procedure, however, relieved the dyspnoea and he slept the balance of the night.

Dec. 28. Patient fairly comfortable. Removed entire tampon from wound. Small amount of bloody pus discharged but no blood. Inserted soft rubber drain about two-thirds depth of wound and dressed dry.

10:00 A. M., temperature 104, pulse 120, respiration 20.

About 2 P. M. a very profuse hemorrhage occurred from this wound. The blood was venous and as well as I could estimate about one pint was lost. When I arrived twenty minutes later hemorrhage had ceased. I again tamponed the wound and applied a dry dressing and no more hemorrhage occurred from this point.

Temperature 3 P. M. 103, pulse 120.

Called again at 10 P. M. and found him resting easily and breathing better than earlier in the day though swelling in pharynx was more pronounced. Temperature 102, pulse 112, respiration 20.

About 1:15 A. M. he awoke from sleep with sensation of great dyspnoea, sat up in bed struggling for breath and coughed once or twice. Suddenly a great gush of scarlet blood poured from his mouth and in less than three minutes he was dead.

No autopsy was allowed.

There is nothing that any one of us can do to prevent the occurrence of cancer except in avoiding certain specified causes of local irritation. On the other hand, there is incontrovertible testimony as to the probability of its cure in a large percentage of cases if taken in time. That cure consists in the complete surgical removal of the growth at the earliest possible moment. Early diagnosis, early removal—there is not now, nor has there ever been, any other successful method of curing the disease.—*"Health News," N. Y. State Health Department.*

A FAMILY WITH INTERESTING EYES.*

BY WILBUR N. LINN,

OSHKOSH.

Congenital dislocation of the crystalline lens (Ectopia Lentis) is usually hereditary, and may follow either parent. By ectopia we understand to be that anomaly of the crystalline in which that organ is developed outside of its normal seat, and is primarily decentered, as it were, with the dioptric system in which it is the most important factor.

According to most observers congenital displacement of the lens is more common in persons of Anglo-Saxon descent than in those of the Latin races. One observer says subjects of the affection are nearly always intelligent and otherwise well developed, though they may present other ocular anomalies, such as aniridia, coloboma of the uveal tract, nystagmus, and most frequent of all, displacement of the pupil.

This corectopia is usually in the opposite direction to that of the misplaced lens.

Von Graefe in 1855 first called attention to the hereditary tendency.

In the congenital form of subluxation the suspensory ligament is imperfect from lack of development, or from rupture in intrauterine life; the capsule remains intact.

The lens may be tilted from side to side, resting partially in, or partially outside of its fossa in the anterior surface of the vitreous body; it is usually clear. It effects parents and their offspring throughout as many as five and six generations, and extends to nephews and nieces. It has been observed in no fewer than ten children of a father who had ectopia lentis. In this instance the mother afterward remarried and bore children with normal lenses.

In the vast majority of cases the misplacement of the lens is upward, or upward and outward; next in frequency is upward and inward. A few are downward, and still fewer, inward or outward.

The affection is habitually bilateral and the direction of the displacement is, as a rule, symmetrical in the two eyes; and further, the particular type of ectopia is common to both parent and child in hereditary cases.

An important and almost constant symptom of ectopia lentis is irridodonesis, or tremulousness of the iris, usually the anterior chamber is somewhat deeper on the side from which the lens is displaced.

By dilating the pupil practically all cases can be easily diagnosed. In some cases the subject may get two images, one through the lens, and one through that part of the pupil where the lens is missing; and usually with the pupil dilated the examiner may easily get a view of the fundus through the lens and at the side.

This family which I am reporting, to me, is very interesting. We have the mother, age forty-three, with a symmetrical dislocation up and in; a vision, right 2/200 minus 7.00 equals 20/70; left, eye, 15/200 minus 7.00 equals 20/70.

The oldest boy of eighteen with a symmetrical dislocation up and out, vision right, 6/200 minus 6.00 equals 20/200; left, 20/200 minus 2.00 equals 20/20.

Next we have the oldest girl, age sixteen, with right lens up and out and left lens up and in; vision, right, 6/200 plus 10.00 equals 20/70; left, 20/200 plus 3.00 equals 20/100.

Then a son, age thirteen, with symmetrical displacement, which however, does not follow the mother, but up and out; vision, right, 4/200 plus 9.00 equals 20/70; left, 4/200 plus 9.00 equals 20/70.

Another son, age ten, follows the example of the previous child, and whose lenses are up and out; vision, right, 8/200, plus 8.00 equals 20/50; left, 8/200 plus 8.00 equals 20/50.

We have lately discovered another daughter who at the time this record was taken was eight years of age, and is now wearing a pair of minus 8.00 lens, which apparently gives her good vision.

This is a family of fourteen children, eleven of whom are living, are strong and healthy. The nationality is German.

It will be noticed that the mother and eldest son, also one daughter, have a high degree of myopia, and the other children accept a strong plus lens.

Here comes the most interesting part of this paper. It was the first, second, third, fourth and seventh child whose eyes were affected, and the husband and father reasons it out in this way, and says during the years when they were poor and

*Read at the Second Annual State Meeting of the Wisconsin Eye, Ear, Nose and Throat Specialists, Milwaukee, Oct. 8-9, 1915.

not able to hire help in the house, his wife becoming pregnant, it was, owing to her defective vision, very hard for her to see her way around and do the work, and he thinks this put an indelible stamp on the children. In later years when finances were easier she did not have much work to do at such times, and the children were born with good eyes.

GOITER.

BY J. K. CHORLOG, M. D.,

MADISON.

The voluminous extent of the literature on goiter, covering its various phases, is so great, that all I can do in the short time allotted me, is to give a brief summary of the established facts relating to the disease.

Embryologically the gland is developed from a single instead of three anlage as embryologists formerly held. It originates between the three portions of the developing tongue and very early in fetal life descends to its final resting place upon the anterior portion of the trachea. Its tubular line of descent is what is later known as the thyroglossal duct and early undergoes obliteration. When there are portions of this duct remaining, which is often the case, it is known as the foramen caecum. Gaskell, however, seems to have demonstrated, that in the higher invertebrates, the duct persists as such and in great part delivers into the genital tract, the analog of the thyroid thus being evidently a sex gland. Occasionally the gland remains in the tongue as a lingual thyroid. Also other anomalies may take place.

The gland is horseshoe in shape, consisting of two lobes connected by an isthmus, rests astride the anterior surface of the trachea, to which it is quite firmly attached by its capsule. It is the most vasular organ in the body. In proportion to its size, it receives 28 times as much blood as the head, and all the blood passes through it once every hour. It is 5½ times as vascular as the kidneys. The lymphatics are numerous, but small compared to its large blood supply, apparent activity, and production of secretion. It is probably that the secretion is delivered into its veins by short lymph spaces within the gland itself. Bouman has shown long ago that the human thyroid secreted a substance rich in iodine.

This secretion is thin, watery and nonstainable. It is probable that the active cells from one-eighth to one-quarter of the gland are sufficient to furnish the necessary amount of secretion for the maintenance of normal health.

As has been stated above, the gland in the higher invertebrates is apparently a sex organ, and to some extent this relationship holds through vertebrates, including man. It is quite common for the gland to enlarge at puberty. The same is true during menstruation, and especially so during pregnancy. At the manopause, many of the troublesome symptoms are due to alternate hyper- and hypo-secretion of the thyroid gland, as evidenced by the effect upon the nervous and circulatory system and nutrition. In early life, it is probably as active in the control of mental and physical development as the thymus, and a child born without a thyroid fails to develop both mentally and physically and is what we call a cretin, while its loss in adult life produces a peculiar deterioration which is known as myxedema.

It is very difficult to determine a normal thyroid, as the variations in the gland are very great, still producing no symptoms. There is ample proof that the thyroid has a considerable storage function, and when this is in excess it leads to pressure atrophy of the active cells and this in turn produces a stasis. Such is the condition in many of the simple goiters producing no symptoms. In this class may also be included some of the encapsulated adenomata of both fetal and adult life. It is believed that colloid is not an essential secretion, but that it acts as storage in holding the essential secretion.

Clinically, goiters may be divided into the following groups:

1. Exophthalmic goiters.
2. Toxic, simple goiters.
3. Nontoxic, simple goiters.
4. Simple goiters, that from their size might cause trouble by their mechanical presence, or might be malignant.
5. Inflamed goiters.

If, in the present state of our knowledge of the clinical manifestation of goiter, we undertake to operate on others than those that are unquestionably causing immediately grave, evidently correlated detriment, a very nice discrimination must be exercised. In young people it is probable that

most of the enlargements are to a less or greater degree of a physiological nature, an effort to meet an increased demand; here if any treatment is indicated should certainly not be of a destructive nature.

The real or fancied presence of goiter is common, but even more common are individuals who are out of their functional adjustment. Among these are the neurasthenic, the highly strung person suffering from mental or physical overstrain; the phthisic, or the patient suffering from one of the numerous chronic intoxications. Many of these give a clinical picture closely resembling the thyroid intoxication, and these individuals may have a coincident goiter.

In describing the symptoms, we shall consider principally those belonging to the exophthalmic goiter. The onset is relatively acute and the course of the disease is fairly definite. Early symptoms are toxic in nature.

The symptoms are those particularly affecting the nervous and circulatory systems and may be enumerated in order of their frequency as follows:

1. Palpitation is the most constant. There is no other disease to my knowledge where a patient with a pulse rate of 120 to 140 can attend to his or her usual business, eat, drink, sleep and even be merry, and not recognize that he or she is suffering from palpitation. The heart is generally hypertrophied and later may become dilated. There may be insufficiency of the valves on account of dilatation, but there is no valvular lesion. The future danger to the heart is myocarditis. The carotid arteries throb, and so may the thyroid arteries. The degree of palpitation is a fair index to the gravity of the disease.

2. Enlargement of the thyroid is the second most common symptom. There is always a true hyperthrophy and hyperplasia, an increase in the cells and activity of the gland. Atoxic or simple goiters include about all varieties not inflammatory, exophthalmic or malignant. However, simple goiters may degenerate and cause some of the symptoms of intoxication and are then known in Europe as pseudo-exophthalmic goiters.

3. Exophthalmos.—This symptom may be present only in a slight degree and frequently only one eye is affected. The forward projection of the eyeball is probably due to the dilated blood vessels at the back of the orbit as the exophthalmos disappears after death.

4. Tremor is the fourth most important symptom. This is almost constantly present, may affect the hands alone, often the tongue, and it may even be difficult to hold the head still, especially so while being examined.

Other important symptoms are cerebral stimulation, such as mental confusions and delusions. Vasomotor disturbances of the skin, such as hot flashes and then a feeling of coldness, and one may feel the patient's hands and face at one time hot, or cold, and in a few minutes they feel the opposite. Rarely in the history of the disease there may be profuse sweating. This however is not a constant symptom.

The skin is generally thin, soft, and moist, and as the blood-vessels of the surface are more or less dilated, perspiration is easily caused by the least nervous excitement. There is diminished electrical resistance, which is probably due to the over-filled blood-vessels on the one hand, and the increased central nervous excitability on the other. Pigmentations are found on different parts of the body and not infrequently on the eyelids. Sometimes there is falling of the hair, or it may become prematurely gray. There may be browning of the skin, not unlike that observed in pernicious anemia or in Addison's disease, or there may be vitiligo. There may be all kinds of eye, ear, and head symptoms.

The eye symptoms are characteristic: (1) The inability of the eyelid to follow the eye-ball on looking down; (2) The unusual amount of sclera disclosed above the cornea when the patient is looking forward, caused by a retraction of the upper lid; (3) The difficulty or actual impossibility of the patient to hold the eye in a position of convergence. There may also be involuntary winking and tremor of the eye-ball. There may be, from the pressure, an obstruction of the mouths of the tear-ducts, and the tears may flow down on the cheek, while the eyes remain dry.

Loss of weight is another symptom which develops sooner or later. There is no other disease in which the patient retains a normal or voracious appetite and still loses in weight, except diabetes and tuberculosis.

Cardiac insufficiency with its various manifestations comes on sooner or later. Leg and muscle weakness occurs, and edema of the feet and ankles.

There may be polyuria, and at times albuminuria, and occasionally glycosuria. Jaundice has been observed.

Vomiting and diarrhoea are occasionally present. Mental depression may take the form of melancholia, mania or chorea, but fortunately these are rare.

The disease may end in death, and the complications which bring this about are most frequently myocarditis, diabetes, or progressive muscular debility and neurasthenia. A pernicious anemia may also bring on a fatal termination. The duration of the disease is from 2 to 10 years or more.

There are certain conditions of the nervous system of unknown origin which closely resemble this disease. As a rule these patients have symptoms extending over many months. They have neither exophthalmos nor an increase in the size or density of the gland, and are not benefitted by operation. Further if 3 grains of thyroid extract are given once daily for 5 days all symptoms will be intensified if the patient is suffering from exophthalmic goiter, while in other conditions the thyroid extract will have no effect.

In carcinoma and sarcoma of the thyroid the picture is usually one of rapid growth of the gland, which becomes hard and irregular, often involving neighboring glands. However, at times these conditions may be very difficult to determine.

There is greatly increased metabolism, especially protein, and there may be a slight rise in temperature. Reid Hunt has found by his acetonitrile test a positive reaction for thyroid secretion in the blood, which undoubtedly means an excess of the thyroid secretion circulating in the blood.

We shall first consider the treatment from a medical standpoint.

First of all a positive diagnosis should be made. Meat, tea, coffee and alcohol should be entirely discontinued. No excitement of any kind should be allowed. Any uterine disturbances should be corrected. Some simple iron preparation should be administered especially since meat is interdicted. The glycero-phosphates of lime and soda should be given, since it has been proven that when exophthalmic goiter is present, the excretion of calcium in the urine is increased in amount, also the lime salts seem to act as a sedative to the thyroid gland. If the patient is well-nourished and in fairly good physical condition, and anemia is not too marked, the bromides should be given for a time, but not to be too long continued, and should be promptly discontinued if there is weakness and debility. On this line of treatment, many will recover, others will be greatly improved, although there may be relapses.

If the thyroid is distinctly enlarged and only a few of the symptoms of Grave's disease are present, small doses of an iodide may stimulate the gland to more normal secretion, however this treatment should be watched carefully and should not be given when the disease is well established.

If all the classic symptoms of the disease are present, the most important of which is rapid heart action, the patient must be put to bed, and must stay there till the heart is quieted. Such laxatives as are indicated should be given. The patient should be encouraged to drink water very freely. The glycero-phosphates should be tried and if these do not quiet the heart, the hydrobromate of quinine in conjunction with ergotin as recommended by Forscheimer should be tried. The bromides should not be given in this condition. The opiates will diminish the secretion of the thyroid gland but they had better be left alone. Digitalis has no effect in quieting the heart when due to hyperthryroidism.

Any active electrical treatment, or any local counter irritation, or rubbing in of ointments or massage are contraindicated, however men of undoubted integrity have lauded these various forms of treatment including the X-ray. The X-ray is strictly contraindicated if a future operation is considered.

Sera have been tried and Bulkley states that in all of his cases palliation has resulted, and thinks a cure possible.

Some have reported good success by giving large doses of arsenic. This does not seem compatible as arsenic usually increases the secretion of the thyroid gland.

Many other drugs have been recommended but many of them have been found wanting in ameliorating the symptoms of hyperthyroidism. Hypnosis has also been tried. Lately emetine hydrochloride given internally has been thought of value in this condition. Also the use of sera has been revived since Rosenow seems to have shown that a bacterial invasion seems to be responsible for some of the thyroid intoxication. Let us hope for much in this direction, as a destructive operation is a poor remedy for a physiological process.

It is estimated that 70 per cent recover spontaneously or under non-surgical treatment.

There is much evidence in support of the fact that endemic goiter may be caused by a water-borne irritant, and if such be the case, the water should be boiled, or the source of supply changed.

Surgical treatment is indicated in all cases where the acute attacks recur and become more severe notwithstanding the fact that the best medical and hygenic treatment has been carried out. This is chiefly true because degenerations of the vital organs will ultimately take place when any operative interference may become impossible; however, hasty conclusions to operate should be condemned. Cohen advises operation: (1) When the disorder has persisted for a long time, and has advanced despite the best medical and hygienic management, including prolonged rest. (2) When the disorder is progressive, or far advanced, and is either disabling or dangerous or threatens to become so—even though no sufficient attempt at medical treatment has been made. (3) When the patient's means or social status is such that rest is impracticable, and the disorder, although slight, is partially disabling, and has persisted for a year or more under treatment, with no sign of yielding. The treatment with boiling water injections is given prominence by some observers notably Porter who describes his technique in Surgery, Gynecology and Obstetrics for Jan., 1915. This treatment is also advocated as a preliminary to thyroidectomy, and in those suffering from thyroid intoxication after a partial thyroidectomy, and also where any other operation might prove hazardous.

It is not emergency surgery, and all patients during periods of exacerbations should be treated medicinally, surgery should be reserved for the period of improvement.

Various symptoms may and do require medical treatment before operation can be considered, such as dilatation of the heart, which should be treated by rest in bed and boiling water injections after the manner of Porter, and if these do not improve the conditions only the least dangerous operative procedures should be undertaken, such as ligating one of the thyroid arteries, a week later another artery may be ligated, etc.; while thyroidectomy should not be undertaken till months afterwards.

Crile has recommended the stealing away of the thyroid with which process we have all become acquainted through medical literature.

Musser wonders whether the benefits following thyroidectomy are attributable to the excision of the gland only, or if they may not in part at least be due to the fact that an operation of some kind has been performed. He believes that almost any violence to the system may be followed by temporary or permanent cure, and refers to cases of Grave's disease, previously very severe, which have subsided after such intercurrent accident as acute appendicitis or enucleation of the eye following trauma.

No operation of any kind should be advised during pregnancy except when extremely necessary, and then the least operation possible should be undertaken, as these patients are very apt to miscarry, or be extremely ill or die, following the operation.

Post-operative treatment is very essential and should include mental and physical rest, a well regulated diet, and the patient should be under close observation until the blood and the nervous system and the heart have thoroughly recovered from the effects of the disease. Excitement and stress of all kinds are particularly to be avoided.

Calcium lactate in large doses up to 60 grains every 4 hours has been found to efficiently control paroxysms of tetany, coming on after thyroid ectomy.

THAT ONE-CENT VERDICT.

The one-cent verdict returned by the jury in the Wine of Cardui case against the American Medical Association teases us to thought—as did the six-cent verdict returned some time ago in Colonel Roosevelt's celebrated suit against an editor in Michigan.

Both sides claim it as a victory. The defendant feels that, in view of the large amount demanded, a verdict of one cent is equivalent to a verdict in its favor. The plaintiff, on the other hand, concerned not only with the damages sued for, but presumably with the good name and reputation of the preparation, thinks that even a one-cent verdict is a vindication.

As the jury has so far shed no particular light on the psychology responsible for the decision, we must assume that it thought the American Medical Association was wrong but not wrong enough to hurt and that the plaintiff was right but not right enough to help very much.

Incidentally, and irrespective of the merits of this particular case, it is permissible to suggest that the American Medical Association will hardly find its prestige diminished among good citizens by its opposition to the sale of proprietary medicines containing a marked percentage of alcohol.—*Chicago Herald.*

SPECIAL ARTICLE.*

THE NATURE, MANNER OF CONVEYANCE AND MEANS OF PREVENTION OF INFANTILE PARALYSIS.

BY SIMON FLEXNER, M. D.,

NEW YORK.

PRACTICAL DEDUCTIONS AND APPLICATIONS.

1. The chief mode of demonstrated conveyance of the virus is through the agency of human beings. Whether or not still other modes of dissemination exist is unknown. According to our present knowledge, the virus leaves the body in the secretions of the nose and throat and in the discharges from the intestines. The conveyers of the virus inclule persons ill of infantile paralysis in any of its several forms and irrespective of whether they are paralyzed or not, and such healthy persons who may have become contaminated by attendance on or association with the ill. How numerous the latter class may be is unknown. But all attendants on or associates of the sick are suspect. These healthy carriers rarely themselves fall ill of the disease; they may, however, be the source of infection in others. On the other hand, the fact that infantile paralysis is very rarely communicated in general hospitals to other persons, whether doctors, nurses or patients, indicates that its spread is subject to ready control under restricted and supervised sanitary conditions.

2. The chief means by which the secretions of the nose and throat are disseminated is through the act of kissing, spitting, coughing or sneezing. Hence, during the prevalence of an epidemic of infantile paralysis, care should be exercised to restrict the distribution as far as possible through these common means. Habits of self-denial, care, and cleanliness and consideration for the public welfare can be made to go very far in limiting the dangers from these sources.

Moreover, since the disease attacks by preference young children and infants, in whom the secretions from the nose and mouth are wiped away by mother or nurse, the fingers of these persons readily become contaminated. Through attention on other children or the preparation of food which may be contaminated, the virus may thus be conveyed from the sick to the healthy. The conditions which obtain in a household in which a mother waits on the sick child and attends the other children are directly contrasted with those existing in a well ordered hospital: the one is a menace, the other a protection to the community. Moreover, in homes the practice of carrying small children about and comforting them is the rule, through which not only the hands, but other parts of the body and the clothing of parents may become contaminated.

3. Flies also often collect about the nose and mouth of patients ill of infantile paralysis and feed on the secretions, and they even gain access to the discharges from the intestines in homes unprotected by screens. This fact relates to the domestic fly, which, becoming grossly contaminated with the virus, may deposit it on the nose and mouth of healthy persons, or on food or eating utensils. To what extent the biting stable fly is to be incriminated as a carrier of infection is doubtful; but we already know enough to wish to exclude from the sick, and hence from menacing the well, all objectionable household insects.

Food exposed to sale may become contaminated by flies or from fingers which have been in contact with secretions containing the virus; hence food should not be exposed in shops, and no person in attendance on a case of infantile paralysis should be permitted to handle food for sale to the general public.

4. Protection to the public can best be secured through the discovery and isolation of those ill of the disease, and the sanitary control of those persons who have associated with the sick and where business calls them away from home. Both these conditions can be secured without too great interference with the comforts and the rights of individuals.

In the first place, where homes are not suited to the care of the ill so that other children in the same or adjacent families are exposed, the parent should consent to removal to hospital in the interest of the sick child itself, as well as in the interest of other children. But this removal or care must include not only the frankly paralyzed cases, but also the other forms of the disease. In the case of doubtful diagnosis, the aid of the laboratory is to be sought, since even in the mildest cases changes will be detected in the cerebrospinal fluid removed by lumbar puncture. If the effort is to be made to control the disease by isolation and segregation of the ill, then these means must be made

*Journal Amer. Med. Assoc., 1916, LXVII, 282-283.

as inclusive as possible. It is obvious that in certain homes isolation can be carried out as effectively as in hospitals.

But what has been said of the small incidence of cases of the disease among the hospital personnel, and those with whom they come into contact, indicates the extent to which personal care of the body by adults and responsible people can diminish the menace which those accidentally or unavoidably in contact with the ill are to the community. Care exercised not to scatter the secretions of the nose and throat by spitting, coughing and sneezing, the free use of clean handkerchiefs, cleanliness in habits affecting especially the hands and face, changes of clothes, etc., should all act to diminish this danger. But in the end, the early detection and isolation of the cases of infantile paralysis in all of its forms, with the attendant control of the households from which they come, will have to be relied on as the chief measuse of staying the progress of the epidemic.

5. The degree of susceptibility of children and other members of the community to infantile paralysis is relatively small and is definitely lower than to such communicable diseases as measles, scarlet fever and diphtheria. This fact in itself constitutes a measure of control; and while it does not justify the abatement of any practicable means which may be employed to limit and suppress the epidemic, it should tend to prevent a state of over-anxiety and panic from taking hold of the community.

6. A percentage of persons, children particularly, die during the acute stage of the disease. This percentage varies from five in certain severe epidemics to twenty in others. The average death rate of many epidemics has been below 10 per cent. A reported high death rate may not be actual, but only apparent, since in every instance the death will be recorded, while many patients who recover may not be reported at all to the authorities. In the present instance it is too early in the course of the epidemic to calculate the death rate, which may prove to be considerably lower than it now seems to be.

7. Of those who survive, a part make complete recoveries, in which no crippling whatever remains. This number is greater than is usually supposed, because it includes not only the relatively large number of slight or abortive cases, but also a considerable number of cases in which more or less of paralysis was present at one time. The disappearance of the paralysis may be rapid or gradual—may be complete in a few days or may require several weeks or months.

The remainder, and unfortunately not a small number, suffer some degree of permanent crippling. But even in this class, the extent to which recovery from the paralysis may occur is very great. In many instances the residue of paralysis may be so small as not seriously to hamper the life activities of the individual; in others in whom it is greater, it may be relieved or minimized by suitable orthopedic treatment. But what it is imperative to keep in mind is that the recovery of paralyzed parts and the restoration of lost muscular power and function is a process which extends over a long period of time—that is, over months and even years. So that even a severely paralyzed child who has made little recovery of function by the time the acute stage of the disease is over, may go on gaining for weeks, months and even years, until in the end he has regained a large part of his losses. Fortunately, only a very small number of the attacked are left severely and helplessly crippled. Lamentable as it is that even one should be so affected, it is nevertheless a reassurance to know that so many recover altogether, and that so much of what appears to be permanent paralysis disappears in time.

There exists at present no safe method of preventive inoculation or vaccination, and no practicable method of specific treatment. The prevention of the disease must be accomplished through general sanitary means; recovery from the disease is a spontaneous process which can be greatly assisted by proper medical and surgical care. Infantile paralysis is an infectious disease, due to a definite and specific micro-organism or virus; recovery is accomplished by a process of immunization which takes place during the acute period of the disease. The tendency of the disease is toward recovery, and it is chiefly or only because the paralysis in some instances involves those portions of the brain and spinal cord which control respiration or breathing and the heart action that death results.

Finally, it should be added that not since 1907, at which time the great epidemic of infantile paralysis of poliomyelitis appeared in this country, has the country or this state or city been free of

the disease. Each summer since has seen some degree of accession in the number of cases; the rapid rise in the number of cases this year probably exceeds that of any previous year. But it must be remembered that in 1908, several thousand cases occurred in the greater city—possibly indeed many cases of and deaths due to the disease were never reported as such. Hence the present experience, severe and serious as it is, is not something new; the disease has been severely epidemic before and was brought under control. The knowledge regarding it now is far greater than it was in 1908; and the forces of the city which are dealing with the epidemic are probably better organized and in more general co-operation than ever before. The outlook, therefore, should not be regarded as discouraging.

MR. SMITH, SURGEON.

The observer of the progress of medicine in this country should be heartened by the latest bit of news that has reached a number of our medical centres, and which, to be brief, is this: The American College of Surgeons has approved the desire of many surgeons to obtain a distinct degree which would differentiate them from practitioners of medicine. There is a strong feeling in the profession that much confusion would be avoided if to surgeons was given a distinctive title. Pressure will be brought to bear upon the medical schools of the country.

Here we have the promise of a subversion of all our cherished ideas, of all our democratic ideals. We know that surgeons are specialists and ought to be known as such, and that the general practitioner has no right to operate, no matter how insignificant the operation. We know that the man who wields the lancet is worthy of praise, and we also know that in his desire to be known as a surgeon he has the welfare of the people at heart. We know that the general practitioner is a poor operator at best, and that his surgical performances on some of his patients have been quite fantastic. But even though we know all this, and really feel that the times are ripe for a broad line of demarcation between the two, the idea of a distinctive title is repellent to our democratic ideals. True, in England, a surgeon is known as mister and not as doctor, but are we to imitate the English in this matter? And if we do not, what other distinctive title could be given the surgeon? Surely not the German word "von" or the French word "de," words which, though they might open certain portals in society to the bearers, would have no meaning in a surgical sense. But perhaps the College of Surgeons has a title up its sleeve that it will not divulge until "the medical schools of the country" agree to the "pressure." Think of the medical schools of the country agreeing!

While we are still in a state of doubt as what the real title is going to be, may we offer a few suggestions to the College of Surgeons, which, if followed, will obviate any deep thinking as what the title ought to be and give no offence to the general practitioner. For some time past we have noted, with considerable depression, the monotony of the signs which proclaim the presence of a physician in a building. Without exception, they carry gilt lettering on a black background, or white lettering; and while the modesty of this form of advertisement cannot possibly collide with medical ethics, it must be admitted by all, who tire of monotony, that modesty in this instance has been a great leveller,—the great and glorious names being on the same lowly plane with the insignificant ones. In the ages that have crumbled into dust by now, surgery was in the hands of the barber-surgeons, and even then, though we are not in a position to say that the men were bitten with any aristocratic notions, they had a distinctive sign which today is still alive in front of barber shops. Now would it not be better for the whole medical profession if, instead of a title that would cause only jealousy and bitter feelings between the surgeon and the general practitioner, the former would change his monotonous sign to gilt lettering against a background of red and white? How easy to do this and how readily all passers-by would recognize that a surgeon is within. If this obtained, no longer would we hear of some poor wight or "wightess" going to a general practitioner for a surgical "trouble"; for it stands to reason that the flamboyant sign would carry at once to his or her limited intelligence the good news that a surgeon resides in the house. But would the less modest sign offend our ethics? Here's the rub.

The general practitioner is going out of fashion with a speed that makes the onlooker dizzy. There was a time when he was respected both by families and his confrères who happened to be specialists, but that time is gone the way of all old-fashioned notions and customs. He still wears good clothes and his back is still straight, but these distinctive signs of prosperous manhood will not be his for long. As general practitioner he was *persona grata* at all the houses where he had patients, and much was made over him. It is true that he did things he should not have done: prescribed drops for the eyes when they were slightly inflamed; gave a gargle for a sore throat; opened a felon or a boil. He was willing to do all this, and sometimes he was not, but the family insisted. Gradually the family did not insist, and though he was still *persona grata*, he realized that the specialist was making inroads into his practice. Of the three diseases we have cited, only the felon or the boil remained for his ministrations; and today, what with the placing of surgery on the highest plane in medicine (a position we approve of), these, too, will slip through his hands. But his sign, if what we have suggested shall obtain, will always be the more modest by comparison with the surgeon's; and that is something to be grateful for to one who has the privilege of enjoying only small gifts.—*Interstate Med. Jour., Dec.*, 1915.

INDUSTRIAL WELFARE NUMBER OF "THE MODERN HOSPITAL."

The August number of "The Modern Hospital," St. Louis and Chicago, is devoted to a symposium on welfare work among the industrial corporations of the country. There are editorials by those competent to write on this important subject, a great number of papers written by welfare directors in some of the most important industrial corporations, and an immense amount of statistics and figures and facts showing the huge volume of work that the corporations are doing to protect their employees against sickness, accidents, and discontent. The journal contains many illustrations of first aid stations, emergency hospitals, and welfare departments of industrial plants, and many facts that should be of great help to those interested. Among the topics discussed are those of first aid, industrial nursing, lunches and diets for industrial employees, safety devices in factories, and athletic and social clubs for employees. The editors frankly state that they have been unable to obtain figures as to cost of welfare work in the industries, but a number of writers attempt to make deductions and draw conclusions from their experiences of the past few years.

"The Modern Hospital" divides welfare work into three phases:

1. To make employees healthy, comfortable, and happy, in order that they may achieve the highest efficiency in their work.

2. To help employees prepare for the day when they are prevented from being bread winners, so that dependents on them may be provided for in case of sickness or disability.

3. To provide entertainment, recreation, and interesting groupings, in order that the employees of the corporation may have mutual interests which will enhance their loyalty and team-work.

Some able writers have discussed the various features of welfare work for the different branches of industry, as, for instance, Dr. Thomas Darlington, former health commissioner of New York and medical director of the American Iron and Steel Institute, discusses the present scope of welfare work in the iron and steel industries. Dr. Samuel Lambert writes on provision for medical care under health insurance, and Dr. S. S. Goldwater, formerly health commissioner of New York, has an editorial on the conservation of health of industrial workers. Welfare work in the public utility corporations is discussed by Mr. H. H. Vreeland, general manager of the Interborough Rapid Transit Company, New York. Mr. James Prentiss Duncan discusses welfare work in the telephone and telegraph corporations. Mr. H. G. Kobick, manager of the employment department of the Commonwealth Edison Company, discusses welfare work in the electric lighting corporations. Mr. S. F. Moore discusses welfare work among the gas corporations. There are stories of welfare work in such department stores as Wanamaker, Macy's, Marshall Field, and similar great concerns. Mr. G. A. Ranney, secretary, discusses welfare work in the International Harvester Company. Mrs. Anne Kendrick Walker discusses welfare work among the clothing and suit manufacturers. A representative of Armour & Co. writes on the subject of welfare work in Packingtown, Chicago. Besides many more of these special papers, there is an epitome of welfare work in hundreds of the corporations of the country.

Perhaps the best feature of the industrial number of "The Modern Hospital" is the attempt on the part of the editors to weed out those features of industrial welfare that they believe undersirable and to emphasize those that seem to best meet the present needs of the American public.—*Exchange.*

HEART DISEASE A PUBLIC PROBLEM.

Stupendous as the undertaking has been, the nation-wide warfare against tuberculosis has been remarkably successful. Through dispensaries, nurses, sanitaria and particularly through education, the death rate from this disease has steadily fallen off. The extent of this decrease is indicated by the fact that, in 1870, the mortality from this disease in New York was 421 per 100,000 while, in 1914, it was 169.

During that same period of 44 years, however, the mortality from heart disease has increased from 74 per 100,000 to 169 per 100,000. In 1870 the mortality from heart disease was 74 as compared with 421 from tuberculosis. In 1914 the two diseases claimed an equal number of deaths.

According to some very eminent health authorities, the time has come when heart disease must receive the same amount of public attention that tuberculosis has in the past.—*Illinois Health News.*

The man who wants to keep up with the procession doesn't dare to stop. Before he is aware of it, the thing as mastered yesterday in preparation for today, becomes out-of-date tomorrow.

He must constantly be revising, renewing, improving. "Old things have passed away; all things have become new," was never more true than right now.

The successful man is the man who keeps at the head of the line. By study, by observation, by meeting worthwhile people, by good reading, by improving his opportunities as he meets—get that—as he meets them, he is not only conversant with the ideals of today and the trend of tomorrow, but he has his plans laid to conform to the possibilities of next week.

Perfection is not for man. Perfection is merely the goal. The achievement of perfection would mean the end of all endeavor, the uselessness of further effort. There would remain nothing to strive for, no more progress to be made.

But the man who cannot improve himself does not exist. So soon as he becomes satisfied with himself, with his puny achievements, just so quickly will the man drop from sight. He becomes a "dead one".

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EDITORIALS

HONOR ROLL.

Aug. 1st, 1916.

CALUMET.	LINCOLN.
CLARK.	*MANITOWOC.
COLUMBIA.	MONROE.
*DANE.	*OUTAGAMIE.
*DUNN-PEPIN.	PORTAGE.
EAU CLAIRE.	RUSK.
*FOND DU LAC.	ST. CROIX.
*GRANT.	*VERNON.
GREEN.	WAUPACA.
*IOWA.	WOOD.
LA CROSSE.	*OZAUKEE.
LANGLADE.	

THE ABOVE COUNTY SOCIETIES HAVE EITHER NO DELINQUENTS OR HAVE EQUALED THEIR 1915 MEMBERSHIP. THOSE INDICATED WITH A "*" HAVE MADE A GAIN IN MEMBERSHIP. IS YOUR SOCIETY IN THIS LIST OF PROGRESSIVE ORGANIZATIONS? IF NOT, WRITE AND ASK WHAT YOU CAN DO TO HELP PUT IT THERE.

ROCK SLEYSTER,
Secretary.

A NEW STATE JOURNAL.

WELCOME, Nebraska, to the Brotherhood of State owned journals! The first number of the first volume is before us and it certainly looks good. Wisconsin wishes Nebraska much success and a long, useful life for the infant just born. The youngster starts out so strong and with such high ideals that his future certainly seems assured. *Salve* Nebraska!

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.

THIS Association meets in Milwaukee, October 19-20, 1916. We have had occasion previously, to call attention to this conference and the work which the young but strong and active Association is doing. The local Committee hopes to make this meeting a great success, but unless it has the support of all, it cannot do so.

There are three classes of individual members: Active members, $3.00 annual dues; Contributing member, $10.00 annual dues; Sustaining member, $25.00 annual dues. There is also Life Membership for $200.00.

Even though we belong already to a number of societies all of which require dues, we should belong to this Association. It is doing a splendid work and can only grow in power if it has increasing membership.

For the convenience of those who wish to become members, may there be many such, we reproduce on advertising page — the membership request card. Fill this out, enclose the amount of annual dues you wish to pay, and send to the treasurer. Get the people to join. This work interests the

people just as much as it interests the physicians and social workers. The local Committee will be glad to furnsh all the necessary blanks for membership.

THE MADISON PROGRAM.

THE chairman of the 1916 program committee has about completed the preliminary program. Including the President's address there will be seventeen papers, quite enough for a snappy program. The address in Surgery will be given by Dr. Norvelle Sharpe of New York, who has made for himself a name as an authority on the surgery of the spine. Dr. F. W. Peabody, who is connected with the Peter Bent Brigham Hospital in Boston, will deliver the address in Medicine. Dr. Peabody has been doing pioneer work in acidosis and respiration. We feel that we shall have two splendid addresses from our guests.

The first afternoon, Wednesday, will be taken up with a series of papers on acute and chronic conditions in the abdomen. Dr. Frank Smithies of Chicago will read a paper in this symposium. Several of the men from the University of Wisconsin Medical Department will read papers. These papers will deal with some phases of the anatomy and physiology of the heart. This is a live subject and one which has not been discussed in our meetings for some time. The men who will read the papers have been doing original research and we are assured of an excellent presentation of this most important subject. This year we are to have several papers dealing with Pediatrics. We welcome this. We have had too few papers on the subject of Infants and Children in the past years.

The program committee has arranged a Hospital Symposium on Thursday evening. One of the speakers will be Dr. John Bowman, the Secretary of the American College of Surgeons.

We are given to understand that the papers will be well discussed. We have always felt that the most important feature of a program at a meeting of medical men, is the interchange of ideas brought out by a frank discussion. Having attended many meetings we are forced to the conclusion that it is not considered good form to disagree with the essayist. Now with this apparent code of ethics we do not agree. We believe that every one who discusses a paper should do so with a critical but friendly attitude, so that the essayist must defend his position. And if any member of a society has really nothing pertinent to offer in the discussion of a paper, let him hold his peace. It is better to be thought possibly ignorant by keeping silent than to be known as ignorant convicted by one's own words.

This should be a snappy meeting. Let us all help to make it one.

THE INDEX.

THROUGH some error the index for Vol. XV was not ready to publish in the June number when it should have been ready. We publish the index this month as a separate sheet which can be slipped in the June number. Also we regret that through an oversight the page numbering of the Vol. XVI was not begun at page one but was run over from the last volume. This should not have happened. It will mix the next index. However it is too late now to change the paging and we shall have to do the best we can under the circumstances.

INFANTILE PARALYSIS.

WITH increasing knowledge of the infectious diseases and with increasing interest on the part of the public in regard to the great question of public health, the country is better informed now in regard to prevailing epidemics than ever before.

We are witnessing this summer an extensive epidemic in Greater New York of poliomyelitis. We have had other epidemics almost as extensive as this one but there was not the publicity given to former epidemics that there is given to this one. By the time this reaches our readers probably 6,000 cases will have occurred in New York alone and about 1200 deaths. In spite of the gravity of the situation we see no reason to become panicky. Poliomyelitis is always with us, many cases do not have resulting paralysis, and if one could place all the abortive cases together with the frank cases, it is doubtful if the mortality would be over 10% and we probably would find that the minority of cases were left with paralysis.

We are publishing in another column the resumé of an article by Dr. Simon Flexner which appeared in Jour. Amer. Med. Assoc., July 22, 1916. Probably some have already read it. There the last word

is said so far as our present knowledge goes. There are a few points which we wish here to emphasize. The clinical symptoms and course are well known. The abortive and non-paralytic cases are of exceeding interest and importance. These cases are not as a rule recognized and help to spread the epidemic. Draper divides all cases into five groups: 1. Gastro-intestinal. 2. Respiratory. In these we may have the symptoms of influenza, cough, lung signs and pains in the bones and joints. 3. Febrile. 4. A type characterized by symptoms of meningismus. 5. The type in which paralysis occurs. It is thus seen that there are four groups without paralysis, or with only transient paralysis, to one group with paralysis. The name "infantile paralysis" is therefore a misnomer.

W. H. Park says: "The sick person and the carrier are the chief sources of infection. There is no evidence that a fly or insect transmits the disease. We must then guard against the spread of the disease by the sick person, the carrier and filth that has been contaminated with the virus." And Dr. Haven Emerson of the New York Health Department in answer to a question as to whether poliomyelitis cases should be segregated, has this to say: "We regard it as perfectly safe to admit patients with poliomyelitis into general hospitals. The disease is rarely communicated in general hospitals to other persons."

The fact that there are non-paralytic cases in a family of several children where only one has typical poliomyelitis, quite comparable to the mild cases of scarlet fever in a family of children, renders the subject of early diagnosis one of immense importance. It is now established that there are changes in the spinal fluid. True, these changes are not always so marked as to be absolutely pathognomonic, but in the presence of an epidemic the findings are always suggestive and often diagnostic. These changes are, increase in amount of the spinal fluid with a slight to moderate increase in albumin and globulin, a *good* reduction of Fehling's solution (this is quite a characteristic sign) and a varying increase in the cellular content, largely mononuclear cells. When the fluid is cloudy it must be differentiated from meningitis. In the latter case there is a polymorphonuclear increase and usually the offending organism can be demonstrated in smears.

There is no change in the blood cells which is of any diagnostic value.

Lastly, treatment is to be considered and, from the public's standpoint, it is the most important consideration. We shall not take up the usual, well-known methods. Two methods have recently been advocated. One we have seen so far only in newspaper notices, namely, the hypodermic injection of the double salt, quinine and urea hydrochloride. A Brooklyn physician is responsible for this. We can not vouch even for the truthfulness as it was a bare telegraphic report in the daily paper. The other method has the seal of the Rockefeller Institute upon it and seems worth considering seriously. Dr. S. J. Meltzer states that he has given intraspinous injections of epinephrin (adrenalin) to monkeys with great benefit. He therefore recommends injections into the spinal meninges of 0.5 cc. of a 1:1000 solution of epinephrin every four to five hours. This may be increased to 1 cc. If pulmonary edema is present one should be very cautious in the initial dose. It is to be hoped that this treatment will be the means of preventing not only the paralysis, but of saving lives.

THE ALCOHOLIC PROBLEM.

WE are informed that at Hartford, Conn., there has been inaugurated a Research Foundation for the study of the many problems in connection with alcoholism and inebriety. We welcome such an institute. There is probably no subject about which more trash has been published and more misinformation circulated than that of the effects of alcohol on the human subject. So many diverse opinions have been promulgated that it is next to impossible to find real authoritative statements on the use of alcohol in health and disease.

We hope that this new Research Foundation will clarify the murky atmosphere of divided opinion and give us real facts. We shall look forward with interest to the publications.

ARSENOBENZOL VERSUS SALVARSAN.

THE inability of the importing drug firms to obtain salvarsan has stimulated chemists in this country as well as in France and England to attempt the manufacture of the dioxydiamido-arsenobenzene-dihydrochloride.

In this country Drs. Schamberg and Kolmer of Philadelphia have made a preparation which they call "arsenobenzol." This apparently is identical with Ehrlich's salvarsan. Before placing the substitute, or rather the identical drug under another name, on the market, the drug was thoroughly tested for its toxicity in animals. We now have reports of its use on a large scale by a number of physicians of wide repute. All testify to the harmlessness of action and the good results of administration. We have used it in a number of cases and, except for its slightly more difficult solubility in hot distilled water, we see no difference between it and the original salvarsan.

At the present time one can obtain salvarsan in .6 gramme ampoules only, for the consideration of $4.50 per ampoule. As the dose of .6 gramme is not often given now, there is apt to be waste of expensive material unless one has several patients to whom the drug is given.

The arsenobenzol can be purchased in smaller doses and the cost is less. We have no hesitancy in recommending this in place of salvarsan. It may be obtained from the Dermatological Research Laboratory, 1818 Lombard St., Philadelphia, Pa.

FLY TIMES.

WHO does not remember the dear old days when we did not know so much about the germs which beset us on every side, and when we used to pick the struggling fly out of the fast melting, semi-liquid butter? How we had to brush off the flies before we could tell what food was before us. How we never took any thought whence the crawling insect had come but serenely ate, our only concern being that we did not swallow one of the pesky critters which lingered too long on the portion we were conveying to our mouth.

We like to go back in memory only to those days. Indeed times have changed in a few years. The apparently innocent fly which was looked upon as an annoyance merely, has been convicted of murder in the first degree and at the bar of Public Opinion his fate is sealed.

We are led to these ebullitions of thought in spite of the fly-time weather, from the fact that we have seen but a fly here and there this season. Where is the plague which so sorely has troubled mankind for centuries? It is almost too much to hope that it has gone. It is not an idle dream to hope that it will eventually go. "Swat the fly" has had its inevitable result. True, the increase in horseless vehicles has helped in large communities to decrease the breeding places for flies. But the actual reason is that mankind has learned to fear the fly with his filthy feet and wings. Where fear is there will much precaution be taken. So we are almost at a fly-less age.

There is a lesson in this for those of us who are wont to remark with a wave of the hand as if to brush aside all opposition, "It can't be done." Just a minute. Maybe it can be done but there has never been concerted effort to try to do it. Individual effort while commendable is futile. Concerted, organized effort backed by Public Opinion is irresistible. When we are inclined to say "It can't be done," let's pause first and consider just what has been done to lesson an evil. We will find if the evil is really an evil and not a hobby of a few, that the sole cause for its continued existence is lack of co-ordination in the forces fighting it.

SEVENTH ANNUAL MEETING AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.

Milwaukee, October 19-21, 1916.

The subjects to be discussed include:—

Governmental activities—Federal, State and Municipal—in relation to infant welfare.

Care available for mothers and babies in rural communities.

Standards for infant welfare nursing.

Morbidity and mortality in infancy from measles and pertussis.

The session on Measles and Pertussis will be a joint one with the Milwaukee County Medical Society.

PROVISIONAL PROGRAM.

All Sessions Open to the Public.

Hours for Sessions are subject to change.

Sessions.

Thursday, October 19, 9:30–11:30 a. m.

Obstetrics.

Public Museum, Lecture Hall.

Committee.

Chairman, Dr. A. B. Emmons, 2nd, Boston.

Secretary, Mrs. Max West, Federal Children's Bureau, Washington.

A Short Retrospect and Look to the Future, Dr. Emmons.

The Cause and Prevention of Stillbirths, Dr. Reuben Peterson, Ann Arbor.

Rural Obstetrics, Dr. Grace L. Meigs, Federal Children's Bureau, Washington.

A Round Table Conference will be held for the discussion of reports of sub-committees with special reference to rural obstetrics Friday afternoon October 20th, in the Gold Room at the Hotel Wisconsin.

11:30 a. m.

Meeting of the Executive Committee.

12.15 p. m.

Annual Meeting, Board of Directors.

2:30 p. m.—Public Museum.

Session on Propaganda.

George R. Bedinger, Detroit, Chairman.

Speakers to be announced later.

Thursday, October 19, 8:15 p. m.

Pediatrics.

Joint Session with the Milwaukee County Medical Society.

Public Museum, Lecture Hall.

Committee.

Chairman, Dr. Borden Veeder, St. Louis.

Topic: Measles and Pertussis.

The Morbidity and Mortality in Infancy, Dr. Veeder.

Measles from the Standpoint of Prevention, Dr. J. G. Wilson, U. S. Public Health Service, Ellis Island, N. Y.

Pertussis from the Standpoint of Prevention, Dr. Isaac A. Abt, Chicago.

Friday, October 20, 10.30 a. m.

Public Museum, Lecture Hall.

Annual Business Meeting.

Dr. S. McC. Hamill, Presiding.

Reports.

Election of Directors.

Friday ,October 20, 10:30 a. m.

Public Museum, Lecture Hall.

Reports of Affiliated Societies.

Dr. S. McC. Hamill, Presiding.

Through its affiliated membership (see page 12 for list) the Association is in touch with baby-saving activities in 76 cities, representing 28 States, the District of Columbia, Canada and the Philippine Islands. Each society has been invited to be represented at this meeting by a delegate who will be expected to make a brief verbal report. The activities covered by these organizations include:

Prenatal care and instruction of expectant mothers; after care of convalescent mothers.

Infant feeding conferences; milk stations.

Instruction of mothers in care of babies well and sick; hospitals for babies; care of homeless babies.

Social service in connection with hospital care of mothers and babies.

Infant welfare nursing, town and country.

Infant welfare work in City and State Departments of Health.

1:00 p. m.

Subscription luncheon for members and delegates at the Hotel Wisconsin.

Friday, October 20, 2:30–4:30 p. m.

Joint Session.

Governmental Activities and Vital and Social Statistics.

Public Museum, Lecture Hall.

Chairman, Dr. Wm. C. Woodward, Washington.

Vital and Social Statistics.

Committee.

Governmental Activities in Relation to Infant Welfare.

Dr. John S. Fulton, Baltimore, Chairman.

The following subjects will be discussed.

Governmental Activities which deal with Infant Welfare. Speaker to be announced later.

Statistical Agencies Relating to Infant Welfare. Speaker to be announced later.

Legal Provision for the Protection of Infant Life, Dr. Woodward.

Friday, October 20, 2:30–4:30 p. m.

Public School Education for the Prvention of Infant Mortality.

Public Museum, Directors' Room.

Committee.

Chairman, Prof. Abby L. Marlatt, Director of Home Economics, University of Wisconsin, Madison.

Secretary, Dr. Dorothy Reed Mendenhall, Special Lecturer on Child Welfare Work, Extension Service, University of Wisconsin, Madison.

Dr. Alice Blood, Director of Course in Home Economics, Simmons College, Boston.

Miss Mathild Krueger, Chairman State Committee of Examiners of Registered Nurses, Neenah, Wis.

Miss Bess M. Rowe, Leader of Extension Work in Home Economics, University of Minnesota.

Topic: The Educational Possibilities in Co-operation between Public and Private Hospital Service and Public School Education in High Schools, Vocational Schools, Colleges and University Extension Work.

Chairman's Report on College Work.

Work of Extension Departments in Educating the Mother along the Lines of Prenatal Care, Dr. Dorothy Reed Mendenhall.

The Relation of Baby Clinic Work to the Classes in Dietetics in College Courses, Dr. Amy L. Daniels, University of Wisconsin.

Baby Clinic Work and Hospital Experience as an Aid to the Extension Worker, Miss Agnes Boeing, University of Wisconsin, Miss Bess M. Rowe, University of Minnesota.

4:30 p. m.

Round Table Conference, Obstetrics. Hotel Wisconsin. Gold Room.

Meeting of Board of Directors. Public Museum, Directors' Room.

Friday, October 20, 8:30 p. m.

General Session.

Hotel Wisconsin, Gold Room.

Address by the President, Dr. S. McC. Hamill, followed by an informal reception.

Saturday, October 21.

9:30 a. m.

Public Museum.

Meeting of the Executive Committee, Directors' Room.

9:30–11:30 a. m.

Rural Communities and Nursing and Social Work.

Joint Session.

Public Museum, Lecture Hall.

Chairman, Dr. Dorothy Reed Mendenhall, University of Wisconsin.

Home Problems of the Rural Woman, Miss Elizabeth Kelley, University of Wisconsin.

The Problems of the Rural Mother in Infant Feeding, Dr. Frances Sage Bradley, Federal Children's Bureau, Washington.

Rural Nursing, (Speaker to be announced later).

A Round Table Conference on Standards for Infant Welfare Nursing will be held under the direction of the Committee on Nursing and Social Work this afternoon at 2 o'clock.

11:30 a. m.

Public Museum.

Closing Business Meeting of the Association, Lecture Hall.

2:00 p. m.

Public Museum.

Round Table Conference, Nursing and Social Work, Lecture Hall.

CORRESPONDENCE

LETTER TO THE JOURNAL.

To the Editor:

In your splendidly vigorous editorial "A Poor Record" you omitted a great deal of the record which isn't written in the reports of the State Board of Health. How many fatalities do you suppose there were from cases of genuine puerperal septicaemia that were certified as having been due to other causes?

Note the following from a letter received from an entirely trustworthy correspondent: "In our (hospital) maternity department this past winter we had two deaths from straight and clear sepsis, not even peritonitis being present, yet I know neither of them was reported under its true designation."

Truly, this physician didn't observe the only instances in which false entries were made in the state's death certificates. How many more do you suppose could be unearthed if the same energy and money were expended that were employed, for example to convict young Orpet for the alleged murder of Marion Lambert?

COMMITTEE OF AMERICAN PHYSICIANS.

(For Medical Preparedness.)

Dear Doctor:

Through the Hay bill in the House and the Chamberlain bill in the Senate, Congress has for the first time in the history of the country, provided for the enrollment of an adequate percentage of physicians to supply the needs of the Regular Army and the National Guard. It has also provided for the enrollment of a large number of physicians in the Officers' Reserve Corps which replaces the Medical Reserve Corps.

It would, therefore, seem appropriate that members of our several committees and representatives of the various medical organizations, especially State and County societies, should let their respective representatives in the Senate and the House, know that the medical profession appreciates that action. If the individual representative voted for an adequate medical personnel, he will be pleased to receive the approbation of the medical profession of his community. If he failed to support that feature of the bill, he will realize that the judgment of the medical profession should be more fully respected in the future.

It has been suggested that on purely patriotic and nonpartisan lines, the State Committees, and the State and County societies might indicate their approval of the provisions above referred to, and their desire that in the future their representatives provide adequate facilities for the equipment and training of a sufficient number of medical officers to meet any possible demands. In this connection, it should be remembered that in the event of a grave international conflict, all physicians who are called to the colors must be officers; and that efficient officers cannot be made quickly. Everyone, even the most ardent pacifists, should see the wisdom of giving adequate equipment and training to the only group of people whose duty it is, even in the thick of battle, to relieve suffering, to prevent mutilation and to save life.

Inasmuch as medical and surgical services are essentially individual services, rendered to individual patients, it is not sufficient to have a few well-trained hospital and other medical units in the service. All units that may be called, should be fully equipped and adequately trained for their new duties. This means that equipment and training should be provided for at least twenty thousand physicians and surgeons in the Medical and Officers' Reserve Corps.

Your active interest in, and your prompt attention to this matter are earnestly desired. Kindly take it up at once with your State Committee and with the officers of your county and other representative local medical societies.

Very sincerely yours,

F. F. SIMPSON,

July 21st, 1916. *Secretary.*

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1915-16

L. F. JERMAIN, President

M. R. WILKINSON, Oconomowoc, 1st Vice President

M. S. HOSMER, Ashland, 2nd Vice President

R. W. BLUMENTHAL, Milwaukee, 3rd Vice President

ROCK SLEYSTER, Waupun, Secretary

DANIEL HOPKINSON, Milwaukee, Ass't Secretary

S. S. HALL, Ripon, Treasurer

Councilors

TERM EXPIRES 1917

1st Dist., M. R. Wilkinson - Oconomowoc
2nd Dist., G. Windesheim - - Kenosha

TERM EXPIRES 1918

3rd Dist., F. T. Nye - - - - Beloit
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1919

5th Dist., W. F. Zierath - Sheboygan
6th Dist., H. W. Abraham - - Appleton

TERM EXPIRES 1920

7th Dist., Edward Evans - La Crosse
8th Dist., T. J. Redelings - Marinette

TERM EXPIRES 1921

9th Dist., T. H. Hay - Stevens Point
10th Dist., R. U. Cairns - - River Falls

TERM EXPIRES 1916

11th Dist., J. M. Dodd - - Ashland
12th Dist., H. E. Dearholt - Milwaukee

Delegates to American Medical Association

A. H. LEVINGS, Milwaukee

J. F. PEMBER, Janesville

T. H. HAY, Stevens Point

Alternates

M. E. CORBETT, Oshkosh

EDWARD EVANS, La Crosse

ROCK SLEYSTER, Waupun

Committee on Public Policy and Legislation

J. P. McMAHON, Milwaukee, Chairman

A. G. SULLIVAN, Madison, Secretary

G. H. FELLMAN, Milwaukee
J. McGOVERN, Milwaukee

S. G. HIGGINS, Milwaukee
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A. S. LOEVENHART, Madison
C. S. SHELDON, Madison

Committee on Medical Defense

G. E. SEAMAN, Milwaukee, Chairman

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A. J. PATEK, Milwaukee

Committee on Health and Public Instruction

W. F. ZIERATH, Shoboygan

J. M. BEFFEL, Milwaukee

EDWARD EVANS, La Crosse

Program Committee

CURTIS A. EVANS, Milwaukee, Chairman

OTHO FIEDLER, Sheboygan

ROCK SLEYSTER, Waupun

NEXT ANNUAL SESSION, MADISON, OCTOBER, 1916.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. O'Brien, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	C. L. R. McCollum, Forest Junction	N. J. Knauf, Chilton, Wis.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	C. S. Sheldon, Madison	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. F. Eames, Egg Harbor	T. C. Proctor, Sturgeon Bay.
Douglas	W. H. Zwickey, Superior	W. A. McEachern, Superior.
Dunn-Pepin	F. E. Butler, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	J. C. Baird, Eau Claire	E. P. Hayes, Eau Claire.
Fond du Lac	A. J. Pulien, North Fond du Lac	H. C. Werner, Fond du Lac.
Grant	N. E. McBeath, Livingston	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	J. A. Kiethly, Palmyra	W. A. Engsberg, Lake Mills.
Juneau	C. C. Vogel, Elroy	A. T. Gregory, Elroy.
Kenosha	J. H. Cleary, Kenosha	J. F. Hastings, Kenosha.
La Crosse	H. E. Wolf, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	F. V. Watson, Antigo	J. C. Wright, Antigo.
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	S. M. B. Smith, Wausau	R. M. Frawley, Wausau.
Marinette-Florence	E. E. Axtell, Marinette	R. R. Heim, Marinette.
Milwaukee	Franz Pfister, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D. Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	R. C. Fauids, Abrams.
Onelda-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	E. A. Morse, Appleton	W. N. Moore, Appleton.
Ozaukee	O. J. Heuth, Cedarburg	G. T. Savage, Port Washington.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B Bock, Sheboygan	Arthur Knauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	J. B. Noble, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	H. A. Jefferson, Clintonville	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. P. Zedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

DOUGLAS COUNTY.

Douglas County Medical Society met at the Commercial Club Rooms, Superior, on July 5th. Dr. W. D. Stovall, of the State Hygienic Laboratory, Madison, addressed the Society. A smoker followed the reading of the paper.

FOND DU LAC COUNTY

About fifty members of the Fond du Lac County Medical Society attended the mid-summer session of the society at the Criminal Insane Hospital at Waupun on July 13th. They were the guests of Dr. Rock Sleyster, superintendent of the institution. At one o'clock a luncheon was served. No business session was held, but the afternoon was spent in inspecting the hospital and state prison. At the close of the meeting Dr. A. J. Pullen of North Fond du Lac thanked Dr. Slyster for the entertainment.

WASHINGTON COUNTY

At the meeting of Washington County Medical Society held on July 7th at Gonring's Grove, Cedar Lake, Dr. J. G. Hoffman, Hartford, was elected president of the society, Dr. S. J. Driessel of Barton, vice-president; Dr. A. H. Heidner, West Bend, secretary-treasurer; Dr. H. H. Albers, Allentown, delegate; and Dr. A. H. Heidner, West Bend, alternate.

WAUKESHA COUNTY

Waukesha County Medical Society met on July 7th at the home of Dr. Donnelly of Monchas. Dr. J. F. Woodhead of Merton addressed the Society, which was followed by a supper.

NINTH COUNCILOR DISTRICT.

The summer meeting of the Ninth Councilor District Medical Society was held at Grand Rapids on July 21st. About 35 members attended. Following the business meeting the members were given a big dinner which all enjoyed. The October meeting will be held at Wausau.

A new society for physicians has been formed by the medical men of southern Wisconsin and northern Illinois. The title of the new society is "Federation of County Medical Societies of Northern Illinois and Southern Wisconsin." The first meeting of the organization will be held at Freeport, Illinois, late in September.

FIRST COUNCILOR DISTRICT SOCIETY.

The fourth annual meeting of the Councilor's First District Society, comprising Dodge, Jefferson, Washington and Waukesha Counties, was held Wednesday, August 2nd, at 3:00 P. M., at the Court House at Jefferson, Wis. Doctor Otto Foerster of Milwaukee, spoke on "The Common Forms of Skin Diseases." Dr. Fred Gaenslen of Milwaukee, spoke on the "Orthopedic Treatment of Cases of Poliomyelitis."

NEWS ITEMS AND PERSONALS

ADVISORY COMMITTEE OF CIVILIAN PHYSICIANS AND SURGEONS ON MEDICAL PREPAREDNESS.*

INFORMALLY, it was brought to the attention of a number of civilian physicians that a consulting committee on medical preparedness would be desirable. This resulted in a suggestion that the presidents of the American Medical Association, the American Surgical Association, the Congress of American Physicians and Surgeons, the Clinical Congress of Surgeons of North America, and the American College of Surgeons should jointly appoint an ad interim committee which could co-operate in developing the civilian and reserve medical resources of the country to the highest point of efficiency. As a result of these suggestions, the following committee was appointed in the manner indicated, the presidents of the various societies acting as members of the committee:

William J. Mayo, Chairman, Rochester, Minn.
Frank F. Simpson, Secretary, Pittsburgh, Pa.
Frank Billings, Chicago.
John F. Binne, Kansas City, Mo.
Joseph C. Bloodgood, Baltimore.
George E. Brewer, New York City.
George W. Crile, Cleveland.
J. M. T. Finney, Baltimore.
Charles L. Gibson, New York City.
Robert G. LeConte, Philadelphia.
Fred B. Lund, Boston.
Edward Martin, Philadelphia.
Franklin H. Martin, Chicago.
Rudolph Matas, New Orleans.
Charles H. Mayo, Rochester, Minn.
Lewis S. McMurtry, Louisville, Ky.
John B. Murphy, Chicago.
Robert E. Noble, Washington.
Albert J. Ochsner, Chicago.
Charles A. Porter, Boston.
Charles A. L. Reed, Cincinnati.
Emmet Rixford, San Francisco.
Hubert A. Royster, Raleigh, N. C.
George E. de Schweinitz, Philadelphia.
Henry Sewall, Denver.
Richard P. Strong, Cambridge, Mass.
William S. Thayer, Baltimore.

*Surgery, Gynecology and Obstetrics, July, 1916.

Albert Vander Veer, Albany, N. Y.
Victor C. Vaughan, Ann Arbor, Mich.

This Committee met in Chicago for organization on April 14. Dr. William J. Mayo was elected Chairman of the Committee, Dr. Frank F. Simpson, Secretary, and an Executive Committee chosen as follows:

George E. Brewer.	William J. Mayo.
George W. Crile.	Franklin H. Martin.
J. M. T. Finney.	Frank F. Simpson.
Robert G. LeConte.	William S. Thayer.
Fred B. Lund.	Albert Vander Veer.

On April 26, the Executive Committee met in Washington and presented in person to President Wilson the following memorandum:

Washington, D. C., April 26, 1916.

Dear Mr. President:—We, the undersigned, acting as a committee of the medical profession appointed by the joint action of the presidents of five national societies, to-wit: the American Medical Association, the American Surgical Association, the Congress of American Physicians and Surgeons, the Clinical Congress of Surgeons of North America, and the American College of Surgeons (having an aggregate membership approximating 70,000 medical men), have the honor to present our greetings and to tender to the Federal Government our services toward the medical welfare of the Army and Navy, being prompted to do so by the following considerations:

1. In times of peace as well as in times of war, the medical profession has always held itself in readiness, out of a spirit of patriotism and cooperation, to serve the best interests of the Federal Government.

2. The European war, especially during the first six months, demonstrated a greater need both of medical supplies and of more efficient organization of medical resources, in connection with military and naval activities than was formerly deemed adequate or necessary.

3. Every soldier and sailor in the service of the Federal Government is entitled at all times to protection in sanitary matters, and to proficient medical and surgical care.

Prompted, therefore, by these considerations, this committee respectfully offers its services in cooperation with the existing medical agencies of the government. Among the services for which at this time the committee specifically tender their cooperation, in conjunction with existing facilities of the Army and Navy for such purposes, are:

1. To establish, through the membership of the above named medical organizations and their affiliations with local medical societies of the states and territories, an organization that would be in a position to make a comprehensive survey of the medical resources of the country.

2. To make a complete invoice of such resources available in peace and in the emergency of war. This invoice would include not only the names of men available for field or home duty who are trained in the specialties of medicine, surgery, and sanitation, but it would also include in minute detail for each community the equipment of the institutions with which these men are connected, such as hospital facilities, buildings available for hospital use, facilities for transporting wounded men, food supply and drug supply on hand and available, lists of trained nurses and other persons essential for hospital work, etc., etc.

3. To aid in the care of the sick and wounded and the elimination of preventable diseases.

We would respectfully submit that thorough organization of the national civilian and reserve medical resources is of primary importance in the proper preparedness of the country.

For the accomplishment of these ends we desire unreservedly to offer our services.

Respectfully submitted,

WILLIAM J. MAYO,
Chairman, Committee of American Physicians,

ALBERT VANDER VEER,
President, American Medical Association,

WILLIAM S. THAYER,
President, Congress of American Physicians and Surgeons,

FRED B. LUND,
President, Clinical Congress of Surgeons of North America,

J. M. T. FINNEY,
President, American College of Surgeons,

FRANK F. SIMPSON,
Secretary, Committee of American Physicians,

George E. Brewer,
George W. Crile,
Franklin H. Martin,
Frank Billings,
John F. Binnie,
Joseph C. Bloodgood,
Charles L. Gibson,
Robert G. LeConte,
Edward Martin,
Rudolph Matas,
Charles H. Mayo,
Robert E. Noble,
Lewis S. McMurtry,
John B. Murphy,
Albert J. Ochsner,
Charles A. Porter,
Charles A. L. Reed,
Emmet Rixford,
Hubert A. Royster,
Henry Sewall,
Richard P. Strong,
Victor C. Vaughan,
G. E. deSchweinitz.

A few days later President Wilson replied to the committee's communication as follows:

My dear Dr. Mayo:—Some days ago, your committee of the medical profession, appointed by the joint action of the presidents of the five national bodies, called upon me and offered to the Federal Government your services and that of the bodies represented toward the medical welfare of the Army and Navy. I immediately took the subject up with the Secretary of War and the Secretary of the Navy, and they have directed the preparation of a plan for availing ourselves of this generous and patriotic offer, which plan, when prepared, will be submitted to you and your associates for comments and suggestions before its final adoption. Surgeon General Gorgas of the Army tells me that he will present the matter to you directly and that whenever a plan can be matured which meets with your approval it will be presented to me for any action I ought to take.

In the meantime, I beg leave again to assure you and your associates of my appreciation of this public-spirited action on your part and my pleasure in the thought that the Army and Navy are to have the great advantage of your co-operation and help.

Cordially yours,

(Signed) Woodrow Wilson.

Dr. William J. Mayo,

Chairman, Committee of American Physicians.

The General Committee, in pursuance of its plan for a general survey of the medical resources of the country, has selected a committee in each state to aid in the work. These state committees are listed below. Members of the General Committee are also members of the state committees for the states in which they reside. To the General Committee have been added the following:

HONORARY MEMBERS.

W. C. Gorgas, Surgeon General, U. S. A.
W. C. Braisted, Surgeon General, U. S. N.
Rupert Blue, Surgeon General, U. S. P. H. S.

EX-OFFICIO MEMBERS.

Colonel Jefferson R. Kean.
President, American Medical Association.
President, American Surgical Association.
President, Congress of American Physicians and Surgeons.
President, Clinical Congress of Surgeons of North America.
President, American College of Surgeons.

ASSOCIATE MEMBERS.

J. F. Anderson, President American Public Health Association.
Winford Smith, Baltimore, President American Hospital Association.
Eugene Smith, Dean, Harvard Dental School.
Edward C. Kirk, Dean, University of Pennsylvania, Dental Department.
Thomas L. Gilmer, Dean, Northwestern University, Dental Department.

STATE COMMITTEE FOR WISCONSIN.

Edward Evans, Chairman, La Crosse.
L. F. Jermain, Milwaukee.
Rock Slyster, Waupun.
G. V. I. Brown, Milwaukee.
F. G. Connell, Oshkosh.
R. H. Jackson, Madison.
John R. McDill, Milwaukee.
J. L. Yates, Milwaukee.
W. T. Sarles, Sparta.

LABORATORY COURSES FOR TECHNICIANS AT MARQUETTE.

The second Summer School for laboratory technicians at Marquette Medical School closed July 22nd.

The courses given this year were: Clinical pathology; pathology, bacteriology, and medical pho-

tography; X-ray; dietetics; social service; anaesthetics, and massage. There were 84 regular students and seven (7) special students in attendance. Fifty-seven (57) Hospitals, sixteen (16) states, and three (3) parts of Canada were represented. The duration of each course was six (6) weeks, dietetics excepted, which was conducted an extra week. This new work was begun in the summer of 1915, when two courses, X-ray and Clinical Pathology, were offered and attended by 22 students. Hence, the school was greatly amplified in 1916, with prospects of a still greater increase in 1917. The students were hospital sisters, trained nurses and other women.

Clinical Pathology. Instructors: Dr. F. A. McJunkin, director, assisted by Doctors E. F. Barta, L. M. Miles, and Miss Mary M. Early.

The work included the recognized tests and methods used in the routine examination of urine, blood, gastric contents, feces and the staining of bacteria, with an introduction to the principles of the Wassermann test.

Pathology, Bacteriology, and Medical Photography. Instructors: Dr. F. A. McJunkin, director, assisted by Miss C. Baumstark and Miss Mary M. Early.

This work consisted of the preparation and staining of fresh and fixed tissue. The freezing, celloidin, and paraffin methods were taught. Also, the routine technic of bacteriology was demonstrated and practiced.

X-ray. Instructors: Dr. C. A. H. Fortier, director, assisted by Dr. J. W. Mountin and Mr. W. H. Powers.

Demonstrators: Dr. F. A. Thompson and Dr. M. N. Federspiel.

Special lectures and demonstrations by Dr. E. H. Skinner, Kansas City, Missouri.

The principles of X-ray and the technic of the apparatus were taught, and the students were given opportunities for practical work on normal and pathological conditions. The principles and practice of X-ray treatment were included in this work.

Dietetics. Instructors: Dr. C. J. Farmer, director, assisted by Dr. E. H. Wood, Miss Alice Patterson (dietitian) and Miss Charme C. Royston (technician).

The course in dietetics is divided into two parts, each representing one summer session of six weeks. The underlying fundamental principles of elemental chemistry were given during the first two weeks. The remainder of the time was spent in practical work in the diet kitchen. Accuracy in measurement was the first principle emphasized. Following this the various food stuffs were considered and correctly prepared.

All foods were considered from the standpoint of calories and composition. The students were taught the figuring of diets with any desired caloric value, and were also required to balance each meal as well as the total daily allotment.

The fundamental principles of digestion were taught in the laboratory by test tube experiments and absorption experiments conducted upon animals. Another feature emphasized, was the date of discharge of various foods from the stomach. Cats were fed various food stuffs containing bismuth, and the influence upon the stomach discharge watched by means of the fluoroscope, and the time noted.

During the last week of the course the students were required to figure out a day's diet of a given number of calories, divide properly into three balanced portions and prepare one meal. This meal was checked by laboratory analysis of an aliquot portion actually taken from the tray, as it was finally prepared, ready to serve to a patient.

Diabetic diets were considered and prepared.

Lectures on fat, carbohydrate, and protein metabolism; the roll of inorganic salts; energy requirements; and vitamines and growth were given in parallel with the practical work of the course.

The second half of the course will be given next summer. It will be devoted largely to the more special field of medical dietetics, where various special diets are required for disease. Urine analysis will be given and the effect of each diet watched clinically as well as checked by systematic analysis.

A special feature will be the modification of milk for infant feeding. Milk analysis will be taught first, then the modification made according to a definite formula, and the milk so prepared, checked by analysis.

The prominent part which dietetics now holds in certain metabolite diseases has emphasized the lack of an available expert dietitian. To meet this demand, arrangements have been made with Miss Patterson to act in a capacity similar to that filled

by a district nurse. Miss Patterson, therefore, will be available for the physicians of the city during this coming year, and will make whatever calls they deem necessary properly to instruct patients in their homes, as to the proper preparation of the diets prescribed. Such service is imperative if nephritis and diabetes are to be intelligently and satisfactorily treated.

Social Service. Instructors: Miss Agnes Murray, director, assisted by Miss Anna Dastyck (hospital record keeping), and twenty-one special lectures on different phases of Social Service.

Besides ten regular students, there were seven (7) special students, members of the Marquette Women's League. The general principles of social service work were taught, and practical experience obtained through visiting various centers of interest from the social service standpoint. Miss Murray was secured from Boston, the well known center of social service, and is now regularly associated with Marquette. This work will be carried on in the dispensary department of the medical school and it is confidently anticipated that its influence for the good of the community shall be widespread. The need of medical social service in every hospital is becoming more and more appreciated.

Massage. Instructors: Miss Mary A. White, director. Special lectures by Mr. E. P. Bodelson.

The general principles of massage were taught and demonstrated, together with practical work on normal and pathological subjects.

Anaesthetics. Instructor: Miss A. B. Krubsack, Trinity Hospital.

The principles of Anaesthetics were taught and demonstrated, on which the student may develop efficiency through the necessary practical experience. It is planned so to amplify this course in the future as to be a great aid in supplying the obvious demand for the expert anaesthetist.

The summer school for technicians has been under the general direction of Dr. B. F. McGrath.

The object of Marquette in this work is to produce the proficient and efficient technician, both for the hospital and the general practitioner. It is believed that this is a field for aiding in scientific medical progress. If such technicians were more readily available, they would be employed by doctors, thereby lessening the burdens of practice and tending to higher efficiency.

The courses will be constantly improved and rearranged to meet the needs of advanced students. The time when a student is considered a candidate for a certificate varies from two to three years, according to the course taken. Then the student is only granted a certificate after she has fulfilled the requirements, namely, constant practical work on her subject between school terms and successfully passing, oral, written, and practical examinations. In other words, the student must prove herself to be both proficient and efficient.

Dr. Cecil C. Lawhorn, after a year's absence in New York, Europe and South America, has resumed his practice at Milwaukee.

At the May meeting of the National Academy of Sciences at Rio de Janeiro, Brazil, Dr. Tom A. Williams of Washington, D. C., was elected corresponding member for the United States.

Dr. Minnie M. Hopkins, Oconto, has returned from a trip to Baltimore and Washington, D. C.

Dr. M. R. Hewitt, who suffered a stroke of paralysis at Hartland six weeks ago, has been removed to his home in Milwaukee.

Dr. R. H. DeLap, after a stay in California, has regained his health, and will again take up practice at Richland Center.

Dr. Francis Neis, Juneau, has been appointed house physician at Trinity Hospital, Milwaukee.

Dr. J. F. Brown has been reappointed superintendent of the Sparta State School for Dependent Children.

Dr. F. C. Studley, Milwaukee, was thrown to the pavement and severely cut about the head in an automobile collision on July 24th.

Dr. F. M. Scheele, Waukesha, was overcome by heat on July 19th. His condition is not considered serious.

Dr. E. P. Crosby, Arnott, suffered a fracture of one leg in an automobile accident on July 15th.

Dr. E. W. Timm, Milwaukee, is made defendant in a $15,000 damage suit brought by Lena Nau.

The plaintiff claims that she was advised by Dr. Timm to have a broken arm reset after it had been set by another physician. She claims infection set in and her arm is now useless.

At a meeting of the Milwaukee Society for the Care of the Sick, July 5, it was voted to turn over its three free dispensaries to the city provided that the municipality will accept and maintain them. The health commissioner presented a resolution to the council for an appropriation of $500 to assume the work of the society.

At a conference between the executive committee of the Milwaukee Chapter of the American Red Cross and J. J. O'Connor of the Central Division of the Red Cross, it was decided to organize a Red Cross base hospital at Milwaukee; a plan for the aid of dependent families of militiamen and other soldiers was perfected; arrangements were made for the production, warehousing, shipping and distribution of hospital and other supplies; a system of first aid work was established, and arrangements were made for the establishment of an information bureau for soldiers on the border or in Mexico. A fund of $60,000 is to be raised, to be divided as follows: $25,000 for equipment for the base hospital, $15,000 for dependent families of militiamen, $15,000 for supplies, and $5,000 for miscellaneous needs.

A brick hospital, two stories and basement in height, and 102 by 42 feet, will be erected at Plymouth this summer, at a cost of $24,000 by the Hospital Association of that city.

The Evangelical Deaconess Hospital, Milwaukee, is to have a four story and basement addition, 42 by 90 feet, to cost about $50,000, and will accommodate about sixty patients.

Another fresh air infants' camp was opened at Kilbourn Park, Milwaukee, on July 24th. This makes three stations now maintained by the health department.

Another case of infantile paralysis was reported to the State Health Department on July 25th. This one was from Green Bay, and makes the twentieth case that has been reported in the state recently.

Officials of the Department of Agriculture charged with enforcement of the Food and Drugs Act expect that the outbreak of infantile paralysis will tempt unscrupulous persons to offer for sale so-called "cures" or remedies for this dread malady. They, therefore, have issued special instructions to the Food and Drug inspectors to be particularly alert for interstate shipments or importations of medicines, the makers of which allege that they will cure or alleviate this disease.

REMOVALS

Dr. J. J. Burke, Algoma to Rice Lake.

Dr. C. C. Tuckwood, Shiocton to Rhinelander.

Dr. James Orr, Mt. Hope to Ft. Atkinson.

Dr. W. M. Ward, Poynette to Bangor.

Dr. Sarah W. Alexander, Madison to Hudson.

Dr. J. H. Dawley, Laona to Crandon.

Dr. A. G. Hough, Morrisonville to Madison.

Dr. A. D. Galloway, Ft. Atkinson to Clayton.

Dr. L. T. McNicholas, Marathon to Athens.

Dr. G. A. Natvig, Knapp to Durand.

Dr. W. M. Lyon of Eden has disposed of his practice to Dr. Joseph Hardgrove of Milwaukee.

Dr. J. T. Klein, until recently assistant physician at the Asylum for Chronic Insane, has opened an office at Wauwatosa.

Dr. J. P. Hobart of Prentice has disposed of his practice to Dr. G. E. McKinnon of Tripoli.

Dr. E. E. Couch, city health officer of Antigo, has resigned his position, and removed to Clintonville.

DEATHS

Dr. Nathan Allen Loofbourow, Monroe, died on July 6th, aged 67 years. He was a graduate of Rush Medical College in 1873. He was a member of Green County and the State Medical Societies.

Dr. Thomas Gillespie, Kenosha, died on July 6, 1916, aged 80 years. Dr. Gillespie had been confined to his bed for more than six years with rheumatism. He was a native of Scotland where he was born October 24, 1835. He came to this country when 14. He was educated for the ministry, and was for a time pastor of the Bristol and Paris Congregational churches. Later he studied medicine, and was graduated from the Hahnemann Medical College in 1880. Dr. Gillespie was one of the charter members of the Kenosha County Medical Society.

Dr. Herman Gasser, Platteville, died on July 7, 1916, after an illness of several months duration. Herman Gasser was born December 6, 1856. His birthplace nestles among the Alps, a few miles south of Lake Constance. He was an Austrian of the province of Tyrol. In 1866 the family came to this country, settling in Dubuque. In the public schools of that city Dr. Gasser was educated, and there became a registered pharmacist. In 1877 he came to Platteville, where he was employed as a pharmacist. He first studied medicine at the University of Iowa, and later at Chicago Medical College, where he graduated in 1883, and immediately began the practice of medicine at Platteville. In 1884 he was married to Elizabeth Griswold of Stitzer. He was a member of Grant County and the State Medical Societies.

ABSTRACTS

QUIET HIP DISEASE.

Under the above title, Drs. H. L. Taylor and Wm. Frieder of New York, in the Journal Surgery Gynecology and Obstetrics for February, 1916, describe a series of cases of much interest, and if these observations are borne out by additional experience, will explain many cases of alleged cured tuberculous hips or coxa vara. While this disease is not new, and has been known under other names, as osteochondritis of the hip or Perthes disease, its pathology is not definite, but may be distinguished as a distinct morbid entity. The disease appears in children generally in good condition, and is as a rule first noticed as a lameness: the child is seen to limp, and after some time the leg is found to be shorter than the unaffected leg, sometimes there is pain in the hip, knee or thigh, but is not a constant symptom. Recovery occurs without special treatment in from one to three years, although Dr. Taylor recommends a spika fixation dressing. Many of these cases pass without a medical consultation, nothing being observed except a slight limp and occasional complaints of pain which the parents often diagnose as "growing pains." If the case now comes under medical observation, is found to be ¼ to ½ inch shorter, X-ray frequently shows a shorter and thickened neck or a flattening of the head of the bone.

As above stated, the pathology is uncertain but the change in the head and neck of the femur is supposed to be some error in osteogenetic development or error in bone nutrition. The disease is not serious in its results, even if not treated.—*Jour. Iowa State Med. Soc.*, July, 1916.

HAY-FEVER WEEDS AND HOW THEY MAY BE RECOGNIZED. With the approach of early summer, the hay-fever sufferer looks forward with dismay to the beginning of his trials. The efforts which have been inaugurated in many of the States to eradicate or control the hay-fever weeds give promise of the eventual eradication of hay-fever, but these measures should be commenced at once in order to be effective.

Fortunately the weeds that are the most noxious to the hay-fever sufferer are already on the black list of the farmer, and have no redeeming features in color, scent or utility. Their chief characteristics are as follows:

1. They are wind-pollinated.
2. Very numerous.
3. The flowers are inconspicuous, without bright color or pleasant scent.
4. The pollen is found in great quantities.

All hay-fever weeds are wind-pollinated, otherwise their pollen would not be in the air to irritate the nostrils of susceptible persons. Bright colors and sweet scent are intended to attract insects for fertilization, and are therefore absent in hay-fever weeds which are wind-pollinated.

Among the hay-fever weeds which will soon be in flower and distribute their noxious pollen are the yellow dock (Rumex crispus), careless weed (Amaranthus spinosus), cockle bur (Xanthium strumarium), etc. The grasses also are noxious to a certain class of hay-fever sufferers and should not be allowed to bloom unless intended for seed.

Dr. Scheppegrell, president of the American Hay-Fever Prevention Association, calls attention to the daisy fleabane (Erigeron) which is beginning to bloom and whose toxicity has recently been established by this association. Children collect these flowers and in one whiff will inhale sufficient pollen to cause a paroxysm of hay-fever lasting three to five days. Such attacks are almost invariably attributed to "colds," the real cause not being suspected. It may, in addition, cause a "sensitization," which will make the child susceptible to hay fever in later years.

From an agricultural standpoint, weeds already cost the farmer millions of dollars annually. When we add to this the economic loss due to hay-fever caused by these weeds, several millions may easily be added. The representatives of our agricultural and legislative in-

terests should therefore unite with the health authorities to eradicate the hay-fever weeds, which are alike a nuisance to agriculture and a reproach to preventive medicine.—*Calif. State Jour. of Med.*, June, 1916.

SCIATICA. In the *Therapeutic Gazette* for June, Alfred Gordon presents the treatment of sciatica and neuritis of other peripheral nerves with hot saline solutions. He has abandoned the use of alcohol in these cases because of the possibility of direct damage of alcohol to the nerves, and commenced to use physiological salt solutions in its place. After a large number of trials the observations led him to believe that the saline solutions of thigh temperature gave better and more lasting results than when tepid or cold. Hot saline solutions were always freshly prepared with freshly distilled and sterilized water for immediate use. Any large syringe of glass or metal can be used, and a needle which is used for lumbar puncture can be employed here. The needle is inserted first, and if no blood appears at its outer end the syringe is attached after all air is expelled from it. The piston of the syringe should be pushed in slowly to avoid sudden expansion and tearing of the tissue and possible hemorrhages. According to the nerve and its localization the amount of fluid injected will vary. For the sciatic nerve he injected as much as 200 cc. For the anterior aural nerve 50 cc. was injected at a time. The same quantity was used for the external peroneal nerve. For relief of infraorbital neuralgia 10 cc. was utilized. As to the selection of the points for the treatment of the various nerves, the following rules were observed: For the sciatic nerve, the point of juncture of the inner and middle thirds of a line passing between the tuber ischii and the great trochanter; for the anterior crural nerve, the inner third of the outer half of a line passing between the anterior superior spine and the root of the external genitalia; for the external peroneal nerve, the base of the fibula; for the infraorbital nerve, the foramen of the same name in the superior maxilla. The number of injections of hot saline solution varied in each individual case, and the following is his general rule: In the sciatica cases an injection was given at first every four days. If the pain subsided after the third injection, two subsequent injections were given—one a week. The following injections were given every two weeks if relief was not complete. Ordinarily the pain disappeared after the fifth or sixth injection. The same general rule was observed in the cases with neuritis of the anterior crural and external peroneal nerves, although fewer injections were required for neuritis of these two nerves than for sciatica. In the infraorbital neuralgia the number of injections was greater than in neuritis of any of the other nerves, one patient requiring weekly treatment for four months. The swelling and tenderness after injection usually disappear in twenty-four to forty-eight hours or a little longer. This method gives great relief, and he most emphatically recommends it.—*Cleveland Med. Jour.*, June, 1916.

D'ESPINE'S SIGN IN CHILDHOOD. John Lovett Morse (*Amer. Jour. Dis. Children*, April, 1916) says that this sign is less often present in children of the well-to-do than in those of the poorer class, and when present in this former class is by no means always a sign of tuberculosis. By D'Espine's sign is meant the tracheal voice or bronchial breathing heard over the spinal column below the seventh cervical vertebra. Normally the tracheal voice ceases abruptly at about the seventh cervical or first dorsal vertebra, and when heard below this point it indicates that there is some tissue, usually lymph nodes, between the trachea and vertebral column which transmits the bronchial sound unchanged.

D'Espine was wrong in his conception that his sign, when present, always indicated tuberculosis of the bronchial glands.

According to Morse's tabulated report, the sign when found in children of the well-to-do classes probably does not indicate tuberculosis in more than 50 per cent. of the cases. It merely indicates enlarged lymph nodes which may be due to causes other than tuberculosis. Among the causes are bronchitis, recent broncho-pneumonia, pertussis, asthma, enlarged tonsils, influenza, frequent colds and possibly other diseases and conditions. Among the poorer classes the presence of a positive D'Espine sign more frequently is an indication of tuberculosis.

PITUITARY EXTRACT IN LABOR.—During the last two years over 1,000 doses of pituitary extract have been given at the Government Maternity Hospital to women in different stages of labor. Hingston (Indian Medical Gazette, March, 1916) has come to the conclusion that the earliest time to give pituitary extract is when the cervix is effaced, whatever size the external os may be. On account of the intense pain due to uterine contractions, pituitary extract should not be given alone, and when it has been injected, chloroform inhalation or morphin injection should be administered at once. The record of these cases shows that there is no danger to the child or mother when pituitary extract is given. No death has occurred in cases in which pituitary extract and small doses of morphin (¼ grain) or pituitary extract and chloroform have been administered. No deaths have occurred after the injection of pituitary extract and large doses of morphin (1 grain), but in these cases some difficulty has been experienced in inducing natural breathing in the infant. No children have been lost in these cases. Hingston insists that scopolamin should not be given when pituitary extract is used, as the child may not survive and will certainly be born in a poisoned condition. Two infants were lost; although the heart beat strongly for more than an hour respiration could not be induced even with Sheil's fluid. Pituitary extract administered with small doses of morphin, ¼ grain, repeated once or twice, has been found to be a great success, but Hingston considers that the best method is to give pituitary extract injection in combination with chloroform inhalation.—*Jour. Amer. Med. Assoc.*

BOOK REVIEWS

Skin Cancer. By Henry H. Hazen, A. B., M. D., Professor of Dermatology in the Medical Department of Georgetown University; Professor of Dermatology in the Medical Department of Howard University; sometime assistant in Dermatology in the Johns Hopkins University; member of the American Dermatological Association. 251 pages, illustrated. C. V. Mosby Co., St. Louis, 1916. Price, $4.00.

This little book is a comprehensive monograph on the malignant growths involving the skin. Chapters are also included on the benign neoplasms. A section dealing with cancer of the lip has been written by Dr. Wm. B. Sowers of Washington, D. C.

The book is richly illustrated and embodies very largely the experience and convictions of the Surgical and Dermatological Departments of the Johns Hopkins Hospital.

The subject is one on which much has been written and on which much still remains to be done.

Dr. Hazen's book brings the literature up to date and furnishes a means of ready reference in a compact form. The bibliography although by no means complete, embraces the most authoritative works which have recently appeared on skin cancer.

R. G. W.

Diseases of the Retina. Leber, Th., Heidelberg. Graefe-Saemisch-Hess, Handbuch der gesamten Augenheilkunde, second, entirely new, edition. Nos. 265 to 267, pp. 1571 to 1810, with numerous illustrations. Leipzig. Wilhelm Engelmann, 1915. 6M. $1.50.

These numbers of Leber's great work on the diseases of the retina deal in the same thorough fashion, as set forth in our reviews of the previous instalments, with detachment, ruptures, entozoa, and glioma, of the retina. Leber thinks that traumatic detachment of the retina most likely always occurs in such a way that the retina in consequence of the contusion is torn generally at the region of the ora serrata, often in large extent, and that vitreous fluid penetrates behind the retina, separating it from the chorioid. Thus the recent observations of belated detachment of the retina, i. e., a few weeks after the injury, are explained by the assumption that in all these cases the detachment is a consequence of a peripheral rupture of the retina and requires a certain time for its development. L. considers this explanation justified, although in the quoted cases generally no rupture of the retina was found, because it may not be visible on account of its peripheral location. This could be proven in some cases. Leber has for years in expert testimonies maintained that an etiological connection between physical exertion or strain and detachment of the retina has not been proven or even been rendered probable by clinical experience and amatomo-pathological findings.

In previously healthy eyes a considerable force is necessary for causing traumatic detachment of the retina, while in myopic eyes slight contusions may produce it. Most likely the estasia of myopic eyes furnishes the factor which elicits the process of retraction, underlying detachment. A combination of statistics from different clinics is given, which shows that 2,219 out of 3,408 eyes with detachment of the retina had myopic refraction.

The various methods of treatment are described in detail with critical remarks. In existing myopia L. urgently recommends the avoidance of near work for protection of the 2nd eye.

In the chapter on traumatic tears and formation of holes in the retina and the origin of commotion of the retina I. propounds that the opacity of Berlin is not due to a real edema, but to a swelling by imbibition, the development of which does not require an active exudation of fluid, as the tissue fluid of the retina and the neighboring vitreous suffices for infiltrating the myelin drops, discharged into the gaps of tissue. Edema, cystoid degeneration, and formation of cysts in the retina are discussed in a special chapter. In the section on entozoa the recent observations of echinococcus in the retina and multiple filaria embolisms of the retinal vessels are presented.

The exhaustive discourse on glioma of the retina occupies 88 pages and will be continued in the forthcoming numbers. C. Zimmermann.

Diseases of the Eye. George E. deSchweinitz, M. D., LL. D., professor of Ophthalmology in the University of Pennsylvania. Eighth edition, thoroughly revised and enlarged. Octavo of 754 pages, 386 text illustrations, and seven lithographic plates. Philadelphia and London. W. B. Saunders Co., 1916. Cloth, $6.00 net; half morocco, $7.50 net.

How great a favorite deSchweinitz's excellent hand book has become in the medical world is again vividly attested by the appearance of the 8th edition, 3 years after the 7th. It has been thoroughly revised with due reference to the progress of ophthalmology within the last 3 years, as will be especially noticed by the introduction of the following subjects: Clifford Walker's Method of Testing the Visual Field; Squirrel Plague Conjunctivitis; Swimming Bath Conjunctivitis; Anaphylactic Keratitis; Family Cerebral Degeneration with Macular Changes; the Ocular Symptoms of Disease of the Pituitary Body; Sclerectomy with a Punch (Holth's Operation); Preliminary Capsulotomy (Homer Smith's Operation); Oridotasis (Borthen's Method); Thread Drainage of the Anterior Chamber (Zorab's Operation); Extraction of Cataract in the Capsule after Subluxation of the Lens with Capsule Forceps (Stanculeanu's Method, Arnold Knapp's Method); Capsulomuscular Advancement with Partial Resection (Ziegler's Method); Tenotomy of the Inferior Oblique; Window Resection of the Nasal Duct (West's Operation); autotoxemic iritis and iritis secondary to mucous membrane infections, a chapter to which the author has largely contributed by very valuable publications.

We cannot quite agree with the author when he mentions exclusively high (malignant) myopia under the causes of detachment of the retina. Although the predisposition to detachment of the retina increases with the degree of myopia, it also exists in milder degrees, as

shown by numerous observations and statistics and also recently emphasized by Leber in his great work on the diseases of the retina. With regard to physical exertion, signified by deSchweinitz as cause of sudden appearance of detachment of the retina, Leber, in concordance with Pfalz, for years maintained in expert testimonies that an etiological connection between physical exertion or strain and detachment of the retina has not been proven or even been. rendered probable by clinical experience and anatoma-pathological findings.

Under the methods of testing the color-sense we miss the enumeration of the very useful plates of Nagel, and the anomaloscope of Nagel, which allows of a more exact diagnosis.

The introduction of the equivalents in the metric system of the doses of remedies and concentration of solutions will be welcomed as a timely innovation. The description of Elliot's corneo-scleral trephining and Sweets' revised method of localizing foreign bodies within the eye by Roentgen rays have been written by their originators, and the section on sciascopy, as in previous editions, has been prepared and revised by Edward Jackson. A number of new illustrations have been inserted. The entire work has been reset and appears in a new and greatly improved form and will be sure of the highest appreciation. C. ZIMMERMANN.

PRACTICAL MEDICINE SERIES. Comprising ten volumes on the year's Progress in Medicine and Surgery. Series 1915. General Medicine, Frank Billings, M. D., and J. H. Salisbury, A. M., M. D. Vol. VI, $1.50. Obstetrics, Joseph B. DeLee, A. M., M. D. Vol. VII, $1.35. Skin and Venereal Diseases—Miscellaneous, Oliver S. Ormsby, M. D., Harold N. Meyer, M D. Vol IX, $1.35. Nervous and Mental Diseases, Hugh T. Patrick, M. D., Peter Bassoe, M. D. Vol. X, $1.35.

These small, handy volumes published at intervals throughout the year cover in concise and readable form the progress of the various branches of Medicine and Surgery.

They are carefully edited, in that practically all articles are abstracted, but there is no attempt to separate the wheat from the chaff. The reader is left to discriminate between the valuable and the worthless. The price is reasonable and the volumes have much of interest in them.

1915 COLLECTED PAPERS OF THE MAYO CLINIC, Rochester, Minn. Octavo of 983 pages, 286 illustrations. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $6.00, net. Half morocco, $7.50, net.

These papers cover a wide range of subjects. The contents are divided into sections on "Alimentary Canal", "Urogenital Organs," "Ductless Glands," "Head, Trunk and Extremities," "Technic," and "General Papers." The contributors are those connected with the Mayo Clinic and those connected with the Mayo Foundation, Graduate School, University of Minnesota.

All the papers have been published elsewhere and are collected into one volume. The illustrations are beautifully made and the volume is attractively made up.

AUTOPLASTIC BONE SURGERY. By Charles Davison, M. D., Professor of Surgery and Clinical Surgery, University of Illinois, College of Medicine; Fellow of the American College of Surgeons; Surgeon to Cook County and University Hospital, Chicago, and Franklin D. Smith, M. D., Clinical Pathologist to University Hospital, Chicago. Octavo, 369 pages, with 174 illustrations. Cloth, $3.50, net.

This handy volume covers autoplastic bone surgery very well. It gives, in concise form an exceptional up-to-date resumé of current scientific opinion as to the action and ultimate fate of bone grafts. The details of surgical operation for some defects is not as full as could be desired, but the surgeon of limited experience in this line of work can find in these pages the possibilities in this work, and for fuller details there is a very rich bibliography appended.

DISEASES OF THE SKIN. By Richard L. Sutton, M. D., Professor of Diseases of the Skin, University of Kansas School of Medicine; Former Chairman of the Dermatological Section A. M. A.; Member American Dermatological Association; Assistant Surgeon U. S. N. retired; Dermatologist to the Christian Church Hospital. 916 pages, illustrated. C. V. Mosby Co., St. Louis, 1916. Price, $6.50.

This new work on Dermatology by an author already well known to medical literature is what its author in his preface asserts it to be, a comprehensive and yet concise volume covering the entire subject of Dermatology. Like most of the recent writers on skin diseases he follows Hebra's classification with some slight modifications.

As has been the tendency in all the recent text books on the subject special stress is laid on the pathology of skin diseases. The reproductions of the photomicrographs in this volume are however especially good.

The illustrations, most of which are in black and white are numerous as they should be in any text book on Dermatology. The colored plates are very poor and had better have been left out.

Several rare diseases are described and illustrated which have not previously been pictorially represented in any book, namely espundia, cutaneous thrush, foot and mouth disease and trichinosis.

Some treatment methods might I think have received a little more thorough consideration, particularly the subject of actinotherapy which has been making long strides in recent years.

Vaccine therapy gets scant consideration and probably with good reason. Sutton states that in his experience stock vaccines are exceedingly unsatisfactory, in fact practically worthless. This statement I think we must all agree with. He has found properly prepared autogenous vaccines of value in furunculosis, carbunculosis, infectious eczematoid dermatitis and dematitis repens, but in acne and sycosis vulgaris practically always disappointing. Phylacogens which have had such wide advertising are not even mentioned, an omission for which the author is to be congratulated.

R. G. W.

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ORIGINAL ARTICLES

A CONSIDERATION OF SOME OF THE MORE COMMON DISEASES OF THE SKIN.

BY O. H. FOERSTER, M. D.,

MILWAUKEE.

Of all the minor ills that flesh is heir to, those affecting the cutaneous structures make up a large proportion. In his daily routine of practice every physician has an opportunity to acquire a certain facility in the recognition and treatment of at least the more common diseases of the skin, but owing to the ever varying clinical picture presented, and to the occasional close resemblance of unrelated conditions, even these frequently encountered diseases may give rise to uncertainty and confusion, especially in diagnosis. As for the infrequent or rare diseases of the skin, their proper diagnosis is often cause for dissention among the most experienced—a condition which is indicative of the work still to be accomplished in dermatology. It is not out of place, then, to review the salient or distinguishing features of the more common dermatological ailments and to discuss the treatment which experience has proven to be appropriate.

Impetigo contagiosa affects both infant and adult, being erroneously called pemphigus neonatorum in the one and barber's itch in the other. It is an acute contagious disease, due to infection of the superficial layers of the skin with the streptococcus, resulting in the formation of usually fingernail-size or smaller, flat, very thin walled vesicles or blebs, which remain single or may run together to form larger patches. On appearance the lesions resemble blisters from a burn, and exude clear serum which dries into a peculiar sugary-yellow crust which often has the appearance of being "stuck on" the surface. It is spread by autoinoculation. The face is most often affected, and next often the hands, especially in young children, and much less frequently other parts are involved. The disease always heals without scar formation. On the hands it may result in infection of the nailfold, and in the bearded region it may be the beginning of a coccogenic (or pustular) sycosis. Although benign in the adult, impetigo affecting the newborn is a grave affection. Of a large series of cases in infants which I have seen, fully one-fourth died within a few days after birth, with almost the entire skin surface denuded by the lesions. Infection is traceable in these cases to impetigo affecting the midwife or physician, or to some member of the family affected with impetigo, who comes in contact with the infant. The contagion is very resistant and may reside for some time in garments, on instruments, and the like, so that the midwife or physician may have a series of infections follow over a long period of time.

Impetigo in the adult is nearly always limited to the face, and in men is generally referred to as "barber's itch", because it is so frequently contracted in barber shops. The real "barber's itch", however, is ringworm of the beard, a fungus infection, and in this part of the country is of rare occurrence. Since the introduction of regulations in this State providing for the more sanitary conduct of barber shops, impetigo contagiosa in men has in my experience been very considerably reduced. Most of the cases which I see nowadays have been contracted in other states.

The treatment is simple and efficacious in nearly all instances. A 2% ammoniated mercury ointment is practically a specific. It is to be applied four times a day, thoroughly, but in the excess of zeal not roughly, to the entire area of each lesion from the center toward the periphery so as to get especially beneath the border. In addition, a 1 to 1,500 bichloride wash is applied twice a day to the entire affected region, or if the area is extensive, a weak permanganate solution may be used. For single lesions that may prove resistant a 5% ointment is more suitable. Shaving must not be resumed until every lesion has been healed as

otherwise new lesions will result by autoinoculation.

There is a tendency among physicians generally to associate bullae or blebs with pemphigus only and to regard every instance of bullous formation as due to pemphigus. This, however, is a very rare disease, especially in the United States. Out of a total of 30,000 cases of skin diseases reported by members of the American Dermatological Association for the year 1910, pemphigus is recorded only 9 times. In my experience the disease most often confounded with pemphigus is erythema multiforme. This is of frequent occurrence, especially in the early spring and fall, in its most pronounced inflammatory or exudative type, is characterized by the formation of few or many large and small bullae or blebs. In the most familiar form the eruption, however, is erythemato-papular, at first rose-red and later of a characteristic bluish-red color, appearing nearly always on the dorsum of the fingers and hands, or extensor surface of forearms and legs, with a few scattered lesions on other parts of the body. It is accompanied by malaise, headache, pains in joints and muscles, and often by fever, being the cutaneous expression of an intoxication of unknown origin, and perhaps anaphylactic in character. Its lesions may be imitated closely by various drug-rashes following the ingestion of quinine, belladonna, arsenic, and others. It is at times associated with pharyngitis and tonsillitis, and as the toxemia may have its origin in those structures they should always be investigated. The disease runs its course in from one to four weeks, but periodic recurrences are common.

The treatment consists in eliminative measures, such as calomel followed by a saline purge, and the use of salicylates. According to Anthony the salicylates are more powerful eliminators of certain toxins than of others and therefore exert a greater curative influence in some cases of erythema multiforme than on others, but are efficient as a rule. Lactate of calcium has recently been used with success to replace the salicylates.

In the group of toxic dermatoses we include the frequent condition of urticaria or hives. Its characteristic element is the wheal, of large or small size, appearing suddenly and after remaining for a variable length of time, vanishing rapidly. These lesions may involve large areas, the entire back or an entire extremity, or they may be few, small and scattered, but all itch or burn and tingle violently, making the patient almost frantic. Scratching or rubbing produces new lesions promptly and aggravates the existing lesions so that the last state is worse than the first. In a well developed attack the eye lids are swollen shut, the lips puffed to twice their size, and the features are distorted beyond recognition. Constitutional symptoms aside from extreme nervousness are usually not pronounced. The attacks are acute as a rule, lasting from two to seven days, but at times the formation of wheals continues for weeks or even years.

The great majority of cases are produced through some disorder of the gastro-intestinal tract. Toxic substances formed during digestion act as poisons to the previously sensitized individual, the condition being typically anaphylactic in character. Individuals with urticaria are sensitized to a certain substance or substances, generally of protein character, and whenever this particular form of protein is introduced an attack follows. The irritant acts directly upon the blood-vessel walls, causing a momentary spasm followed by dilatation, with exudation of serum and some leukocytes. There is considerable similarity of the process to that occurring in hay fever, which is now also regarded as an expression of anaphylaxis. The urticaria following injection of various therapeutic sera, such as diphtheria antitoxin, likewise depends upon the introduction of a foreign protein which resides in the serum—but human serum, being of the the same species, does not produce an anaphylactic state, which allows of its use in the procedure of blood transfusion. Bruck of Breslau has recently succeeded in producing urticaria in dogs which were sensitized to sausage meat, and with the serum of these dogs, containing the offending protein, he was able to produce urticaria in a second set of dogs which had been fed with sausage meat. This sensitization explains why some persons react with urticarial symptoms following the ingestion of definite foods—such familiar examples being: strawberries, lobsters, crabs, cheese, oysters, nuts, oatmeal, mushrooms, caviar, veal, chocolate, salted fish, and others. Many drugs produce urticaria in sensitized individuals; among these are: quinine, urotropin, copaiba, cubebs, morphin, chloral, glycerin, phenacetin, antipyrin. The poison injected by insects when biting produces a local and at times a general urticaria. Rupture of internal cysts, as hydatid cysts, results in absorption of a toxin, as may the

puncture of pleural effusins, with the production of urticaria. The sources of intoxication are therefore varied, but the mechanism in the production of the disease is the same. The disclosure of the anaphylactic nature of toxic dermatoses is one of the greatest advances made in dermatology in recent years, and further developments along this line may be expected to shed still more light upon many problems.

In the treatment of urticaria, as most cases are due to foodstuffs, an emetic is indicated in severe cases if seen early; at a later period calomel, castor oil, or a saline purge will remove the offending material. Almost every housewife knows that cream of tartar or baking soda is of service, and soda bicarbonate with salol, given frequently, is a routine prescription of distinct value in my experience. Some cases, especially those of longer duration, are relieved more quickly by calcium lactate. A restricted diet is of course indicated, and for the relief of thirst, which is often pronounced, carbonated or effervescent alkaline water is efficient. A warm soda or starch bath is often grateful and relieves the intolerable itching better than the hot bath. For local use evaporating and therefore cooling lotions, followed by talcum powder to which camphor has been added, are required in practically all instances. A mixture of equal parts of alcohol, witch-hazel and water, to which carbolic acid 1% and menthol ½% are added, makes a satisfactory lotion to relieve itching, but must be applied frequently. At times a ½% menthol ointment is more serviceable, and acts by substituting the sensation of cold for that of burning or itching.

A disease not infrequently confounded with urticaria, probably owing to its itching, as it is unlike in all other respects, is scabies. Following the congregation of large numbers of people at a common center and their later dispersal to all parts of the country, such as occurred at the World's Fair at Chicago in 1893, at Buffalo in 1901, and at the time of the War with Spain in 1898, the disease incidence of scabies or itch rose tremendously and almost assumed the proportions of a national epidemic. The main wave of scabies has receded and at present we encounter the disease much less frequently, and in consequence are inclined to overlook it altogether. Its characteristic features are an eruption of small, pink papules, usually almost obliterated by scratching, found especially where the skin is thinnest, that is between the fingers, at the bends of wrists and elbows, on the axillary folds, the breasts in women, about the waist, and also on the buttocks and thighs, and genital organ in men. The face and neck are always unaffected, except in nursing infants. In some cases the pathognomonic burrow is to be found—a delicate irregular line seen especially on the wrists and fingers, representing the tunnel dug in the horny layer of the skin by the acarus or itch mite, which can often be found there. As a rule the eruption is multiform, consisting of scratch marks, crust-capped remains of papules, and intact papules and pustules with an occasional tiny vesicle. The itching is always worse at night, or when the body is warm, and may be absent entirely during the day. This feature of the disease and its contagious character, as shown by its occurrence in several members of the same household, all aid in the diagnosis. The contagion resides in the skin and in the personal clothing as well as in the bed clothes,—facts to be considered in the treatment but usually overlooked.

Scabies is speedily curable, even if of long standing, but re-infection will occur unless the wearing apparel of the patient and the bed clothes are sterilized. This is efficiently done by ironing all those articles which cannot be boiled, with an iron as hot as the fabric will allow without scorching, paying special attention to the seams and pocket linings. Gloves and shoes require special cleaning, though bedstead and mattress need not be incluled in the sterilization. As an application for the body, sulphur is the standard remedy. A favorite formula is one containing precipitated sulphur 4 drachms, Balsam of Peru 4 drachms, and beta napthol 2 drachms, to four ounces of lard, which is sufficient for an adult; the betanaphthol is omitted in infants and children. The patient is instructed to rub this ointment thoroughly into his skin from neck to heels on three successive evenings, take a bath on the fourth day, put on clean clothing, and sleep in a fresh bed. All affected members of the household are to undergo similar treatment at the same time so as to prevent re-infection. There is, however, one feature to be observed. Sulphur often excites a more or less violent dermatitis, especially in those of blonde type, which appears about five to seven days after the ointment has been applied. The itching due to the sulphur dermatitis and the appearance of

the dermatitis itself frequently lead the patient, and the physician as well, to think that the disease has returned, and treatment is consequently resumed to the great discomfort of the patient. A carbolic lotion or emulsion should therefore be used routinely for several days after the sulphur inunctions, to prevent or relieve the dematitis which often follows.

Of all diseases of the skin eczema is most frequent, constituting about one-third of the cases. In spite of its frequency the nature of eczema is not fully understood, but it appears to depend upon both local and constitutional factors; the latter act as predisposing causes by producing a cutaneous depression or vulnerability and thereby allow local irritants to become operative. Various states of the general system, such as anemia, neurasthenia, gastro-intestinal disorders, nephritis, and the like, result in the formation, absorption, and improper elimination of toxins, and prepare the skin for the deleterious action of chemical, thermal, or mechanical local irritants. Among these are various medicinal agents, such as iodin, dye-stuffs, soaps, bichloride of mercury, arnica; also excessive heat, cold and wet winds, friction of clothing or appliances such as braces, trusses, and the like. Micro-organisms probably are not directly causative of eczema, but are responsible for secondary changes which may in turn overshadow the original condition. Plant poisons produce dermatitis of various degrees, often difficult to distinguish from eczema, and they may eventuate in eczema.

The diverse and varying clinical appearances of eczema may give rise to confusion, especially if one has in mind only text-book types. It is uncommon for the disease to present itself only as a purely papular or vesicular eruption, though one of the various elementary lesions may predominate. It is in this sense, that is, the predominance of any one type of lesion, that we recognize papular, vesicular, and pustular types of eczema. In general it may be stated, that six features fairly well stamp an eruption as eczema: redness; the development of papules, vesicles, or pustules; a gummy discharge from the surface; crusting and scaling; thickness and infiltration; itching and burning. These symptoms are not all observed in every case, but a sufficient number is present in the various forms of eczema to allow the diagnosis to be made. A further feature of value in the diagnosis is the presence of scattered, isolated lesions at some distance beyond the main patch of eruption, seen most often in the papular and papulo-vesicular form.

In its early stages the eruption of eczema often remains unmodified as erythematous, papular, or vesicular, but it is soon transformed into one or more of the other forms. Each type, however, exhibits favoritism to a certain extent for certain sites. Thus, the erythematous variety affects by preference the face, arms, and genitalia in adults of middle life. Papular eczema involves especially the arms, legs, and back in children and young adults. The vesicular eruption is common upon the faces of infants, the so-called "milk-crust," and upon the hands and feet of adults where it forms small groups or clusters and appears in crops. Pustular eczema may begin as such or develop from the vesicular form, and occurs most often upon the face and scalp in poorly nourished children, or in the hairy region of the body in adults. A frequent secondary form is eczema rubrum, commonly seen upon the legs of old people and upon the faces of infants. It is characterized by a denudation of the horny layer of the epidermis, with oozing of a gummy serum which dries into yellowish or brownish crusts. This form is accompanied by intense itching, especially in the case of children, and is the despair of almost every one called upon to assist in its treatment. Squamous eczema is also a secondary form, being a modified, chronic erythematous or papular eczema in which infiltration of the skin and scaling are prominent. It may cover large areas of the skin surface or appear in small patches, and is often seen on the palms of the hands or soles of the feet. Here it produces either thickening of the epidermis or a thinned, glazed, reddened condition, with the formation of numerous deep or shallow fissures which are intensely painful. It is this variety that has been termed eczema fissum.

In spite of the general belief to the contrary, Schamberg's statement holds good that nearly all eczemas will yield to persevering and skillful treatment. Acute forms respond more readily to treatment than cases of long standing, for as the disease becomes subacute or chronic, changes occur in the structure of the skin which make treatment more difficult. It is necessary that the patient devote the requisite amount of attention to the details of treatment, for much of success depends

upon the patient's proper care of himself. There is no specific in the treatment of eczema. Many cases are definitely cured by local treatment alone, but in general, as far as internal treatment is concerned, the patient should be treated rather than the disease. While there is a great diversity of opinion as to the rules regarding diet it may be stated that in every case alcohol should be forbidden, tea and coffee reduced to a minimum, and all articles of food avoided that are difficult to digest. The quantity and character of food to be permitted depends upon the individual. Regulation of the bowels is of decided importance, and diuretics or tonics may be indicated in the individual case. Arsenic is harmful except in the chronic papular or squamous eczemas, and in these its usefulness has been greatly over-estimated.

We are dependent therefore upon local applications as our most effective measures, and should be guided in the selection of remedies and their strengths by the degre of inflammation present. In acute cases the remedies must be soothing and antiphlogistic; in chronic types stimulating and absorbent. Water is always irritating in acute eczema, and often in less acute types, and must be avoided. For the removal of crusts there is nothing I have found to equal the boric-starch poultice, which also acts as a soothing application in inflammatory cases. It is made by adding one teaspoonful of boric acid to four tablespoonsful of ordinary cold water starch and stirring in enough cold water to make a mixture of the consistency of cream. One pint of boiling water is then slowly added and constantly stirred until the starch bursts and forms a jelly. When cold this is spread on cloths in a layer about half an inch thick, and applied fresh every six hours. In acute eczema dusting powders may be used with advantage, but lotions are usually of greater value, with 3% boric solution as a type. To this may be added varying amounts of lime water and dilute solution of lead subacetate, with phenol to relieve itching. In very irritable vesicular eczema a continuously applied wet compress of a 2% solution of boric acid and resorcin will frequently be found most effective. Ointments are often not well borne in acute cases, and a paste of one part each of starch and oxide of zinc with two parts of vaseline may be used instead.

When the acute stage has subsided it is advisable to use mildly stimulating remedies, combined with antipruritics. With plain paste as a basis we can incorporate phenol or menthol, tar, and mercurials, with the proviso that they be used weak in the beginning and gradually increased in strength later. This applies especially to tar, which is a treacherous remedy except in chronic, infiltrated cases, and should always be used with caution.

In the chronic stage tar, ichthyol, and salicylic acid are of greatest service, acting as keratolytics, stimulants and absorbents. In recent years X-rays in skilled hands have produced wonderful results, and must be given prominence as the most effective single agent in the treatment of chronic eczema when properly employed. X-rays are of particular service in recurrent vesicular eczema and in chronic fissured eczema of the hands and feet, even if of many years duration.

About four years ago it was demonstrated that many instances of recurrent eczema developing on and between the toes were in reality due to the ringworm fungus. Recently it has been shown that in the great majority of instances of so-called dysidrosis or pompholyx, which affects the hands and feet, the causative agent is also a species of ringworm. The frequency with which we find this type of ringworm infection is astounding when attention has once been directed to it, for we have observed very many cases of this disorder within the past half year or more. There is usually the history of a recurrent eruption during several years, generally occurring in the warm weather, and the patients or others of the family often have an old intertrigo or erythrasma (eczema marginatum) in the groins or in the folds between the genitalia and thighs. The eruption on the hands and feet is primarily vesicular, often with marked redness and swelling of the area affected. The vesicles are at first small and deep seated, later large and superficial, with cloudy or purulent contents, and may be few in number of so numerous as to cover the entire surface of the hands and feet. At times the forearms are involved and the foot to the ankle, so that the patients are prevented from using their hands or walking. Exudation and exfoliation of varying degree take place and considerable suffering results. As the parts which were first affected return to normal there is often vesicular extension along the margins, and on the palms and soles new vesicles may appear in areas which have just been healed, thereby protracting the course of the disease for a considerable period.

The recognition of an eczema or dysidrosis as of ringworm origin is not difficult. The contents of a vesicle, or better, the secretion adhering to the under-surface of the top of a vesicle, or a fresh scale, are placed on a clean glass slide, a drop or two of a 10 per cent. potassium hydrate solution is added, and the preparation is examined under the microscope. A profuse mycelial growth is readily seen in true ringworm cases, and establishes the diagnosis without question.

The treatment is also relatively simple. In severely inflammatory types sedative applications are indicated, and are then followed in a day or two by an ointment of salicylic acid, 20 to 30 grains, benzoic acid, 30 to 60 grains, in equal parts of petrolatum and lanolin, enough to make one ounce. It is also advisable to use a 12 per cent solution of sodium hyposulphite as an antiseptic local application twice or three times a day for the arms and feet. Most cases yield quickly to this treatment. The obstinate forms may require as an alternative treatment the use of weak chrysarobin ointments before the infection can be entirely eradicated, but even the highly inflammatory types yield with surprising rapidity. The definite separation of "eczematoid ringworm" as a disease entity, from recurrent eczema of the hands and feet, and from dysidrosis, is one of the most recent achievements in dermatology.

In infantile eczema the chief causes are most often related to the alimentary tract. The proper adaptation of the food to the nutrition of the infant is of fundamental importance, and the ingenuity of the physician may be exhausted in the attempt to provide the proper food. If the child is breast-fed the quality of the mother's milk must be investigated, and if this is found deficient and incapable of improvement the child should be placed on milk that is suitably modified. The local treatment is similar to that of acute and subacute eczema in adults, except that the applications must be very mild. In the less acute types very weak tar ointments are of service, but the time for their selection requires careful judgment.

In this cursory consideration of some of the prominent features of skin diseases commonly met with, I have attempted nothing more than to pass in review and thereby refresh the memory of knowledge which is the common property of all medical men. But by grouping and in a measure condensing these facts the subject may have acquired additional interest for the general practitioner and thereby justified this presentation.

HOT WEATHER SCIENCE.

The murderous outbreak of the negro Henry McIntyre and the tragic consequences thereof have once more directed attention to one of the most difficult problems of modern society—that of the proper method of discovering and dealing with the mental defectives who may be converted by circumstances into a very real danger for other people. They have also evoked an outbreak of passionate psychology and heated criminology in divers quarters which is not likely to lead very far in the direction of an improvement of conditions.

The problem is here—no one can possibly deny it But let us approach it fortified more with the true scientific spirit than with the hot weather science which has been displayed during the last few days in that connection; with minds at a temperature of, say, about 60 or 65 instead of somewhere around 96 or 100 in the shade. Of course, from the standpoint of hot weather and excited science the thing is extremely simple: Go out into the highways and byways and gather up every one who is a "moron" or who is going to be a "moron" or any other sort of defective and segregate the crowd at once.

But the thing isn't quite so simple. There is a great deal to be learned and a great deal to be devised in the method of executing what has been learned before society is ready to adopt the dragnet proceedings which seem so natural and necessary to the leading exponents of hot weather science. It is particularly desirable before answering the clarion calls which have come from divers quarters to rise and deal with the problem in a truly heroic mood for psychopaths, alienists and other scientists to "get together" a little more than they appear to be at present in regard to some essential questions.

If we listen to what we hear from one quarter it is as easy to find out who is a "moron" as to find out the name of one's next-door neighbor. The psychopathic tests are supposed to furnish a practically infallible guide. After they have been applied all that remains to do is to cart the subject, if the decision is against him, off to a concentration camp. But from other quarters we hear different reports. Reputable alienists have declared that there are probably a million people in Chicago who couldn't pass the modern psychopathic tests satisfactorily. And there you are!

Now that the very hot weather has been relieved to some extent, let us trust there will be a corresponding drop in the temperature of the criminology which has been put forward so noticeably since the North Irving avenue affair. That way and that way only the hope of really accomplishing something lies. Hot weather science may have its uses, but they are seldom to be found strictly in the field of criminology and law enforcement. Let's have an end of the orgy and get down to business just as soon as possible.—Editorial *Chicago "Herald"*.

GASTRIC AND DUODENAL ULCER IN THE NEW BORN.*

BY T. W. NUZUM, M. D.,

JANESVILLE.

Gastric or duodenal ulcer in the new born is infrequently recorded. Its occurrence, or manifestations of its presence during the first few hours of life lend special interest to the factors which are held important in the production of ulcer.

A few instances are on record in which a new born babe succumbed as the result of a hemorrhage, the blood having been vomited or passed from the bowel and at autopsy only so-called excoriations of the stomach or duodenum were found. This led me to a careful study of a perforating lesion found in the stomach of a babe which died at 24 hours of age after having bled several times from the bowel.

I first noted that there was no thickening or induration of the edge of the ulcer nor of the vessels round about. In fact, had there not been a band of adhesions extending from the region of the ulcer in the duodenum to the gall bladder, and had the intestinal wall not been perforated, I would have been tempted to consider the lesion only an excoriation and not an ulcer, so different was it from the thickened wall, elevated and indurated edges and base and the inflammatory glands which we are accustomed to see in the older child or the adult. The ulcer must have existed for some time, since there was a band of fibrous adhesions one-half inch wide extending from the ulcer site to the gall bladder and there was an inflammatory exudate about it which proved the effort on the part of nature to prevent perforation in like manner as is found in the adult.

When we consider that perforation occurred soon after birth when the stomach and intestines were distended for the first time, that there had been no food and probably no acid present to irritate, and that any contents which may have been present were sterile, we readily see why the appearance of the lesion should be entirely different from the classical picture of gastric and duodenal ulcer which we have in mind.

Barring constitutional diseases, i. e., syphilis and tuberculosis, with which in this instance we are not concerned in so far as I could determine, there is only one among the causes of ulcer which can be considered here and this is the blocking of a vessel by a septic thrombus. This must have originated in the mother and reached its destination through the placental circulation since there were not lesions in the child except the one under consideration, nor was there any digestive or irritating gastric secretions. Recent experimental work has strengthened the belief that gastric or duodenal ulcer is due to infarction of the gut wall by a septic embolus.

Rosenow, working at the Memorial Institute for Infectious Diseases, Chicago, has cultured tissue taken from excised ulcers and has repeatedly obtained a pure strain of streptococcus. On injecting this culture into the blood stream of dogs and other experimental animals he has obtained gastric or duodenal ulcers in a large per cent. of cases.

Le Count has found that in a majority of the instances of peritonis following a perforated gastric or duodenal ulcer a pure growth of streptococci results when this pus is cultured. Helmholz recently re-examined the tissues from an epidemic of 18 cases of ulcer in children occurring many years ago and after staining microscopic sections of the floor of these ulcers for bacteria, found organisms present in 11 of the 18 instances.

Other types of bacteria may likewise produce ulcer but streptococci are most frequently responsible.

Erosions, if such exist, must come from like causes and with the thin, pale gastric or duodenal wall with little or no inflammatory changes discernible to the naked eye, one will experience some difficulty in differentiating between an excoriation and a simple ulcer which has not perforated, and this in ulcers that have exsanguinated the babe in a few hours.

That syphilis or tuberculosis might be a causative factor in such lesions is undoubtedly true, but the history of the parents together with other lesions present and microscopic examination of the ulcer area should clear up the diagnosis.

There can be no visible or apparent symptoms present until the loss of blood is manifest either by being vomited or passed in the stool, by the pallor or collapse resulting from excessive loss of

*Read at the 69th Annual Meeting of Wisconsin State Medical Society, Milwaukee, Oct. 6-8, 1915.

blood, or by the foregoing symptoms combined. Should the infant vomit clots of blood one would think of the stomach. Should there be little or no blood in the vomitus and much in the stool, one might decide the ulcer was duodenal. The symptoms before actual bleeding begins are nil. The nurse may notice the apearance of collapse in the child, though this is seldom the case. The first thing that usually attracts her attention is the appearance of blood in the vomitus or stool.

The following histories will illustrate: Case 1. C. N., a strong healthy girl 24 hours old suddenly vomited some two or more ounces of blood after which she was very pale and weak and when I reached her showed very marked symptoms of loss of blood. This occurred on two other occasions and she lay at the point of death for some time. The case seemed hopeless but she finally rallied, made a slow recovery and up to the time she was 10 years old was a healthy, fine girl. At that time I lost trace of her. There seemed no doubt but this was a case of gastric ulcer, which was present before birth and which started to bleed on account of the distention of the stomach by the mother's milk and consequent peristalsis, or by both.

Case 2. B. H., a fine baby girl, cried lustily following a natural delivery, nursed well, and seemed well in every way until about 14 hours old when the nurse noticed a spot of blood on the diaper. I examined the child and she seemed none the worse for the loss of blood but she had passed a small quantity of clotted blood and we had to believe there was more in the intestines. We made a diagnosis of hemorrhage from a duodenal ulcer and instituted active treatment for the same, but to no avail. She continued to pass clotted blood during the night, went into collapse and died when 24 hours old. A post-mortem was permitted. There was a firm band of organic adhesions about ½ inch wide extending from the ulcer site on the duodenum to the gall bladder, also some friable adhesions and a plastic exudate. A small quantity of blood had oozed through the perforation into the peritoneal cavity. The mucosa around the tiny ulcer was smooth and soft, not noticeably different from that in the normal parts.

Bisset reports the death from hemorrhage of an infant only 45 hours old. There had been no vomiting and this was puzzling. Autopsy showed an acute gastric ulcer with clear cut, punched-out margins situated on the posterior wall of the stomach near the cardiac opening. "It was completely perforated, circular, and almost the size of a three-penny piece on its inner surface. It is usually a simple ulcer, but among infants tuberculous and syphilitic ulcers have been described. Actual perforation of the ulcer is extremely rare."

Prof. Finkelstin, Berlin, says: "When one sees a case under the title of melena of the new born, it is very seldom called duodenal ulcer. It was only possible for me to find five cases in the first weeks of life where an ulcer of the duodenum was observed."

In a review of the literature, ulcer in older children is frequently reported but ulcer in children under one year of age is not so common. Schmidt* reports 2715 autopsies in which at 2 years of age, 6% had a round ulcer of the duodenum and 1.8% had a similar lesion during the first year of life.

The prognosis in the new born is very grave, and nearly all of the recorded cases died. Many deaths, due to hemorrhage from a bleeding ulcer have been attributed to other causes and undoubtedly many ulcer cases which bleed less severely recover on the milk diet and frequent feedings and are only recognized as "stomach trouble."

CONCLUSIONS.

1. Ulcer of the stomach and duodenum occur in the child in utero.

2. These are undoubtedly of thrombotic origin, the bacteria originating in the mother and passing through the placental circulation.

3. Many instances of pyloric spasm, indigestion and marasmus in infants and children are due to gastric or duodenal ulcer.

4. Many instances of hemorrhage from the stomach and bowels in infants, which formerly have been attributed to other causes are due to ulcer.

5. More frequent post-mortem would throw much light on this subject.

6. The treatment is for arrest of hemorrhage.

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*W. Schmidt, Berliner Klinische Wochenschrift. 1913, L, 593.

THE NURSE MIDWIFE.*

BY FRED J. TAUSSIG, M. D.

While I have been asked to present the midwife question from the point of view of the doctor, I feel that it would be wrong to do this literally. The midwife question must be solved independently of the interests of any special class. Whether a certain number of incompetent women doing midwifery are deprived of their employment, or whether a few general practitioners lose a portion of their clientele, is a matter of very little consequence as against the possibility of saving the lives and health if our mothers and babies.

As an important step in the solution of this problem, I would suggest for your consideration the establishment of schools of midwifery, admission to which would be limited to graduate nurses. The idea of utilizing the graduate nurse, especially the visiting nurse, for midwifery is not a new one. In England a considerable number of nurses have already taken up this work. Dr. Henry Schwarz only recently suggested the importance of training nurses to do midwifery in rural communities. As far as I know, however, the suggestion of a special school for nurse-midwives has not been seriously considered. Whether such a school should maintain an independent existence or be organized as the graduate department of a nurses' training school is a matter for later consideration.

My idea of the curriculum of such a school would include the following: Attendance for six months to a year, entire charge of at least thirty cases of normal confinement, a majority of which should be out clinic cases, a systematic course of lectures and demonstrations, thorough hospital training in diagnosis, special work in the treatment of emergencies, etc. Affiliation with a hospital possessing a large obstetrical material and with a medical school having trained instructors in this branch would of course greatly increase the efficiency and standing of such a school. In view of the large number of foreigners desiring the services of women at their confinement, it would be the object of such a school to encourage as many foreign-born graduate nurses to take up this work as possible.

Such in brief is the outline of my suggestion for a nurse-midwife school. A number of objections to such a proposal will at once come to your mind. In the first place, could we not accomplish the same end by establishing proper regulation and education of the midwife? I realize, of course, that the introduction of the nurse into midwifery, if it succeeds, is bound to be a gradual process and that in the meantime every effort should be made to improve the condition of the ordinary milwife; but I am also convinced of the impossibility of establishing such state regulation, supervision and education as exists in some of the countries of Europe. It requires a strongly centralized government with strict police supervision to put into successful execution such a system. We have not and do not want such paternalism in our government. Regulation and education in this country must therefore always be unsatisfactory.

But even in countries like Denmark and Italy where state control and educational requirements for midwives are at their best, the type of woman entering this work is inferior to that of the English and American nurse. In Bellevue Hospital, New York, the midwives, I understand, have been given special training in nursing, and while it is doubtless the best we can do for the time being, isn't it putting the emphasis at the wrong point? The foundation for the proper care of the woman in confinement lies in the work of the nurse. It is better to train the nurse to do midwifery than to attempt to teach the midwife some of the rudiments of nursing.

Next we come to the argument that the midwife should rather be eliminated through the general practitioner, that the creation of the nurse-midwife would be simply substituting another sort of half-trained person in place of the fully trained physician. If we could turn out a sufficient number of physicians specially trained in obstetrics to care for all confinements, I would agree that the nurse-midwife was superfluous. But such a condition is not apt to arise for many generations. At present there are barely a score of such men in any of our larger cities. The problem actually before us is whether the nurse-midwife would not be better fitted for normal obstetrics than the majority of general practitioners.

I fully realize that the general practitioner is the backbone of the medical profession and that we

*Paper read at the Second Annual Meeting of the National Organization for Public Health Nursing, April 25, 1914.

cannot do without him. He performs his manifold duties with a skill and diligence that we all admire. Some of these duties have already been taken from his shoulders, but with the increasing complexity of medical practice, there should be additional relief in order that his time and energy may be spared for other work. I think it can be truly said that the majority of general practitioners dislike obstetrics, are impatient at the necessary delays, lack daily training in aseptic methods, and above all, must take care of all manner of infectious diseases. I grant that the physician has a general medical training superior to that of the nurse-midwife; but is he for that reason alone better qualified to attend normal confinements? Is not his imperfect asepsis and the risk of carrying contagion to his patients a serious danger in his obstetrical work, and are not the delays of his obstetrical work ofttimes a hindrance to his other duties as a practitioner? Should he not therefore rather look forward with relief to the time when the properly trained nurse can undertake this irksome work for him?

Nothing is more essential in obstetrics than rigid asepsis, and here again the nurse has special advantages. Comparatively few practitioners have hospital training, and where they do, this is usually limited to one year of a rather general experience. The nurse, on the other hand, has two to three years of daily hospital routine, during which not merely the theory but the practice of aseptic methods are drilled into her until they become second nature. Take such a woman and give her six to twelve months' special training in obstetrics, have her continue this work in further years of practice and it stands to reason her aseptic technique must be superior to that of the general practitioner.

But how would it be in case of some complication? Who would then best serve the interests of the patient? It is unfortunately true that in such instances the practitioner will, as a rule, try to get along by himself and often attempt operations which he is not qualified to perform. The nurse-midwife, on the other hand, while trained to give emergency treatment, could be trusted to send for help in any serious case and would naturally send at once for the man specially trained in obstetrics.

If I have in the foregoing seemed to emphasize the advantages of the nurse-midwife over the general practitioner, it should not be inferred that my motive is primarily the elimination of the general practitioner from normal obstetrics. The main issue is the gradual substitution for the midwife of some better qualified person, and this better qualified person is, as I have shown, rather to be found in the nurse-midwife than in the general practitioner.

And now let us consider for a moment the objections that might be raised by the nurses. First of all there is the name, the fear that the public may identify such nurses with the objectionable type of woman engaged in midwifery here in America. I trust the nurses have in their own past experience sufficient illustration of the fact that the public soon learns to differentiate the work from any stigma attached to the name. After all it is not so long ago that we obstetricians were termed man-midwives, and in England, even to this day, obstetrics is termed midwifery. The famous Sir James Simpson, discoverer of chloroform anesthesia, was Professor of Midwifery. Among the surgeons also a similar prejudice had to be lived down, for they were formerly termed barber-surgeons. Perhaps the best illustration how quickly tht public differentiate good and bad work independently of the name is to be seen in England, where even before the midwives act of 1902 the midwife who held a diploma from the London Obstetric Society occupied a much higher position socially and professionally than the ordinary midwife. It is the quality of service rendered that counts in the respect of the community.

As to the character of the work and its remuneration I cannot see why there should be serious objection on the part of nurses. The increased responsibilities ought rather to appeal to the ambition of those nurses who are fond of obstetrical work. As to remuneration, I believe that in the beginning a certain number of the nurse-midwives should be in the employ of visiting nurses' associations until their reputation is sufficiently established. Eventually the successful nurse-midwife should be able to earn far more than the graduate nurse.

It might also be claimed by some that if the nurse was permitted to care for confinement cases, she would soon want more, would take care of abnormal cases, do gynecology, and assume functions, just as many midwives do now, that would

make her a danger to the community. I do not fear such a complication. The nurse through her higher moral sense and better medical education will realize her limitations. Moreover, through the regulation of nurses' associations and schools, any overstepping the bounds could be met with official disapproval, so that such a nurse would promptly lose standing in her profession. An occasional transgressor will doubtless be found here just as among the doctors, but this is no argument against the system as a whole.

A further argument in favor of the proposed system lies in the increased economy of work it secures. Nowadays there is so much more work to be done for the health and social betterment of the masses than there are people to do it, that wherever we can get one person to perform the work formerly done by two it should be so arranged. In the past it has been found advantageous for the visiting nurse thus to assume some of the functions of the social worker. Under the system of the nurse-midwife, she would also undertake some of the work of the physician. In the vast majority of cases the latter could be spared the necessity of attending confinements.

Finally, while realizing the important work of the obstetrical outclinic in caring for women during confinement, and in training physicians for these duties, and while hoping that these outclinics may grow larger at the expense of the midwife, I do not believe they answer every purpose. For one thing, they tend to pauperize a large portion of the working classes. The reason so many persons prefer the midwife in spite of her lack of asepsis, beside the fact that she is a woman, is that the midwife is paid a fee for her services, and that the patient can stay at home and maintain her self-respect and her privacy. With the nurse-midwife in charge, all these advantages could be preserved and in addition thereto the patient could receive the best of care for herself and child during and after the confinement. I agree entirely with the wisdom of Dr. Ehrenfest's suggestion that the public should be educated about the special advantages of the obstetrical outclinic through the agency of the visiting nurse, but even so there will still be a large group of patients who do not want this sort of service and whom the nurse-midwife can best handle. The latter would work in co-operation with and not in competition with the outclinic. It cannot therefore be argued that a school of nurse-midwifery would reduce the obstetric material for the medical schools. On the contrary, the obstetric clinics would be the gainers, since most of the complicated cases would naturally be referred to them for treatment. While able to pay a moderate fee to the nurse-midwife, patients of this class could not, as a rule, afford to pay for a consultant and help would naturally be sought from the best qualified obstetric charity, the university clinic.

In conclusion, if I have been over-enthusiastic on the subject of schools of nurse-midwifery, it is with a realization that changes of this sort are not made in a day, but are the result of gradual evolution. It will take many schools many years to supplant all the midwives, but eventually it will come to pass. The nurse-midwife will, I believe, prove to be the most sympathetic, the most economical, and the most efficient agent in the care of normal confinements.

FRAUDULENT ADVERTISING IN THE DISTRICT OF COLUMBIA.

Congress prohibits fraudulent advertising in the District of Columbia. Why not within the entire federal jurisdiction? Congress has passed a bill, which was signed, May 29, by the president, prohibiting "fraudulent" advertising in the District of Columbia. By this act it is made unlawful to display or exhibit to the public in any manner whatever, whether by handbill, placard, poster, picture, film or otherwise; or to insert or to cause to be inserted in any newspaper, magazine or other publication printed in the District of Columbia; or to issue, exhibit, or in any way distribute or disseminate to the public; or to deliver, exhibit, mail or send to any person, firm, association or corporation any false, untrue or misleading statement, representation or advertisement, with intent to sell, barter or exchange any goods, wares or anything of value. The act further prohibits the use of any of the methods of advertising described above with the intent or purpose to deceive, mislead or induce any person, firm or corporation into employing the services of the advertiser. The House of Representatives' committee report on the bill expressly states that it is designed, among other things, to prevent quack doctors and fake dentists from advertising their fraudulent nostrums, impossible methods and alleged results. If the president and Congress agree that a law to prevent fraudulent advertising is a good thing for the District of Columbia, will they not agree that a similar law would be equally good for interstate and foreign commerce and for the purification of the United States mails?—*Jour. Amer. Med. Assoc.*

LIMITATIONS OF SURGERY IN THE TREATMENT OF PELVIC INFLAMMATIONS.*

BY PALMER FINDLEY, M. D.,
OMAHA, NEB.

The limitations of surgery in the management of pelvic inflammatory lessons is a subject of growing interest.

In the days of Emmet, Sims and Fordyce Barker, conservative measures were practiced to the almost exclusion of surgery. Then followed a period of unrestrained activities in surgery. There was wholesale slaughter of infected uterine appendages, vaginal drainage was practiced in the initial stage of the infection as a prophylactic measure, the uterus was mercilessly scraped and not infrequently removed. Now we may fairly say that the profession, in large part, has turned again to conservative methods. It has learned through laboratory studies and clinical observations that the forces of nature at work in and about an inflammatory zone can be confidently relied upon to repulse the offensive movements of the allied micro-organisms of infection; that natural barriers are established which are usually adequate, if not broken down by the overzealous surgeon. To illustrate my point, let us recall the familiar picture of a puerperal infected uterus and the inevitable sequence—curettage. The puerperal wound has been attacked by micro-organisms capable of producing a local or general infection. Nature's forces respond by creating in advance of these organisms a protective zone in which innumerable leucocytes are found, the vein channels are obstructed by thrombi and the lymph and blood channels are restricted by the contracting uterus. These local conditions, together with the general resistance of the individual, are usually adequate to hold the micro-organisms in check, thereby preventing a widespread infection; but that deadly weapon which Emmet has characterized as an "instrument of the devil," proceeds to break down this protective zone, to tear down the protecting thrombi and to relax the grip of the uterine musculature upon the lymph and blood channels along which the infection may travel. *How seldom we see a severe type of puerperal infection that has not been tampered with.* The cautious removal of retained placental tissue and vaginal drainage of a pelvic abscess is the sum total of justifiable surgery in the management of puerperal sepsis. To attempt more is to invite disaster. The best results in the treatment of puerperal infection will be obtained by the doctor who can exercise the greatest degree of self-restraint and who is wise enough to relegate the care of the case to a competent nurse with instructions to give the patient abundance of nourishment, fresh air, and rest. I will hazard the statement that more lives are lost and more ill health endangered by untimely surgical intervention in puerperal sepsis than have ever occurred through lack of surgical attention.

What has been said of the management of puerperal infection will apply with equal force to all forms of acute pelvic infection. Gonorrheal infection of the pelvic organs shares about equal honors with puerperal infections in point of frequency, and here as in puerperal infections, the tendency of infection is toward localization if unmolested, but the swab and the curet tend to spread the infection deeper into the uterine musculature and on through the uterus to the appendages and pelvic peritoneum. Gonorrheal infection will seldom make considerable inroads upon the pelvic structures if rest is enjoined and the surgeon restrained.

We will dismiss the consideration of the surgical limitations in the treatment of acute pelvic inflammations by repeating that the only surgical measures to be employed in puerperal infections are the removal of secundines and drainage per vaginam of a pelvic abscess. In the acute stage of a gonorrheal infection, surgery has no place. Permit me to offer a word of caution in the draining of a pelvic abscess. We are not only to proceed cautiously lest we break down the barrier which protects the abdominal cavity but we are to exercise the greatest caution for fear of dislodging infected thrombi in the pelvic veins.

It is not such an easy task to outline the surgical limitations in chronic pelvic inflammations, but I will venture upon some generalizations for the purpose of eliciting a discussion. First of all, I desire to pay my respects to endometritis and its manage-

*Read before the Sioux Valley Medical Society, January 26, 1916.

*From St. Paul Med. Jour., July, 1916.

ment. We owe much to Hitchman and Adler for their observations on the cyclic changes of menstrual membranes. Throughout the period of sexual activity, there is less than one week out of four in which the endometrium is at rest. At all other times there are well defined anatomic changes incident to the menstrual cycle. The enlarged irregular glands, the varied changes in the connective tissue, all characterize one or another of the various stages of menstruation. We have erred in the past by regarding these changes as inflammatory in character and to them we have freely applied the terms hypertrophic or hyperplastic glandular endometritis, and in so doing, we have justified the use of the curet. While we do not deny the identity of endometritis, we do now know that we have, very frequently indeed, mistaken a normal process for a morbid one. Furthermore, we have learned from Theilhaber, Reinecke, and others that changes in the myometrium are responsible for many of the menstrual disorders which were formerly chargeable to the endometrium. And we have learned from a host of observers that an hypertrophied endometrium may be of ovarian origin; that the menstrual disorders are chargeable to the hyperfunctionating ovaries rather than to the uterus. These are but suggestions that the curet will fail to afford relief in a large proportion of menstrual disorders.

When we have to do with an infected uterus, we cannot expect to remove all the infected tissue by the curet and if all is not removed, may we not expect a regeneration of the diseased mucosa and a possible deepening of the infection through the wounds we have made? These general remarks prepare the way for the dogmatic statement that it is needless and dangerous to scrape an infected uterus. We do not curet for leucorrheal discharges unless for the purpose of making a diagnosis from the scrapings and then only when malignancy is suspected. Have you not noted that where the uterus has been curetted for relief from leucorrheal discharges, that following the procedure the discharges are increased, and have you not time and again observed the development of a salpingitis and a pelvic peritonitis following a curettage of an infected uterus? I will go so far as to lay down the dictum that the therapeutic use of the curet should be restricted to the control of hemorrhages, and even in this restricted field there is often no prospect of gaining more than temporary relief because the determining factors are so often remote from the endometrium.

Formerly full twenty-five per cent of my operations were directed to the relief of pelvic infections; of late, the number does not exceed five per cent of all cases operated upon. This is so because of my growing faith in the restorative powers of nature and of my dissatisfaction with the results obtained through surgical means. I here refer particularly to infections of uterine appendages. the vast majority of these cases can be brought to a symptomatic cure if tentative measures are persistently employed, and I ask, can surgery do more? Surgery will not replace a diseased tube or ovary by normal ones, and if the patient is relieved of all symptoms, what more can we do? But unhappily our surgical activities have often resulted in substituting a pain in the side for distressing general as well as local disturbances. Post-operative adhesions may produce as great local distress as did the offending tube and ovary and the removal of the ovaries prior to the menopause will almost certainly create distressing general conditions. In other words, it is better that she suffer faithfully pursued and have failed to give the desired relief, surgery must be invoked but it should be a discriminating sort of surgery. There will seldom, if ever, arise the justification for the removal of both ovaries in a woman less than forty years of age. Better that she retain one ovary or a part of one ovary, and that a troublesome member, than to suffer a total loss of her ovarian secretions. When conservative measures have been some local discomfort than to become a hopeless neurotic. Where the uterus is deeply involved and it is advisable to remove the tubes, I am of the opinion that the best results will follow a complete hysterectomy. Less than this will fail to give complete relief and might endanger life from post-operative complications for lack of adequate drainage.

I will end this diatribe by asking you to refer to your case records of the past ten years. Note the conditions before operation, the surgical steps taken, and the early and remote results obtained. Then compare your results in this class of cases with those obtained from operations on the pelvic organs for all other sorts of lesions excepting cancer, and then ask yourself if you are satisfied with your surgical results in pelvic infections. If I am

not very much mistaken, you will arrive at the conclusion that your results have been comparatively unsatisfactory; that you will find a larger percentage of mortality and morbidity following operations upon this class of cases than upon any other, barring malignancy.

REPORT OF EIGHTY-TWO CULTURES TAKEN FROM PHYSICIANS' CLINICAL THERMOMETERS.*

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Compared with the high standard of cleanliness set for other instruments and utensils used in the practice of medicine and surgery, the average clinical thermometer gets but scant attention. The care given a clinical thermometer varies much with different physicians. Many deem it sufficient to wash it in water either by stirring it in a glass or allowing water from the tap to run over it, after which it is sometimes dried and returned to the case, and sometimes returned without drying. Others, in addition to washing it more or less thoroughly in water, wipe it off with alcohol or some other antiseptic such as carbolic acid, lysol or whatever other antiseptic solution is available.

It not infrequently occurs that after a thermometer is removed from the mouth or rectum, it is allowed to remain unwashed until the end of the physician's visit, during which time the secretions become thoroughly dried and therefore more difficult of removal. In hospitals, we found various methods of cleansing the thermometers in vogue. The most common practice is to take them from a glass containing some solution such as formaline, and after using, return them again to the solution. When there is a large number of patients in a ward, these thermometers are often used again, without being thoroughly washed or allowed to remain for any length of time in the antiseptic solution.

The thermometers from which the cultures were taken were those used by the physicians in their daily practice. Most of them, with the exception of the hospital thermometers, were carried in the ordinary case in the pocket.

The technic employed was as follows: Culture tubes containing broth were obtained from the laboratory of the Board of Health. Each tube was numbered, with a corresponding number for record. The thermometers were stirred in the broth and after incubation, the cultures were transferred to agar plates. After proper incubation the colonies were picked out and examined.

The results are as follows:

Total cultures taken, eighty-two.

Of this number, thirty-three were sterile; forty-nine contained organisms of various kinds.

Streptococci occurred in thirteen cultures. One thermometer which gave a pure culture of streptococci had been used in the mouth of a patient with facial erysipelas a few hours before and had been washed in water, and dipped in alcohol before returning to the case. Five others, from thermometers used in scarlet fever patients contained streptococci in large numbers.

Staphylococcus albus and citrus were present in thirteen cultures.

Pneumococcus occurred in one culture.

The remainder had various organisms, large spore-forming bacilli, Hay bacilli, Mould fungus, etc.

To demonstrate that more than ordinary washing is required to render clinical thermometers free from secretions after using, the following experiments were made:

Six cultures were taken from thermometers directly after they were removed from the mouth, after first washing them in running water. Six cultures were taken from thermometers, after removing them from the mouth, after first washing them in running water and then rubbing them off with 95 per cent. alcohol. Of the first series of six, Nos. 1, 2, 3, 4 and 5 gave cultures of various organisms including staphylococci and large spore-forming bacilli. No. 6 was sterile. Of the second series of six, only one gave any culture, the remaining five being sterile.

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*Read before the Ramsey County Medical Society, March 27, 1916.

*From St. Paul Med. Jour., July, 1916.

Five cultures were taken from thermometers after washing them thoroughly with running water with constant rubbing, and then washing them off thoroughly with sterile cotton wet with 95 per cent alcohol. All these were sterile.

Five cultures were taken from thermometers with a smooth surface (scale on the inside), which had been washed in running water with soap and then dried on a clean hand towel. Two of these gave cultures, one of staphylococcus albus, the other of a large diplococcus.

From the foregoing experiments it is apparent that clinical thermometers are possible sources of infection and that some safer method of rendering them clean than is generally in vogue should be employed.

It has been demonstrated that careless washing will not suffice but that thorough washing with running water and then alcohol will render them clean.

A thermometer case containing some solution such as alcohol or formalin, in which the thermometer could be carried, would lessen greatly the possibilities of infection, as several thermometers were examined which were carried in this way and all were sterile.

It must be remembered that returning a soiled thermometer to the ordinary case will result in infecting the case, so that it may be constant source of contamination to the thermometer no matter how carefully it may have been washed.

SUPERSTITIONS CONCERNING MENSTRUATION.

It is not surprising to find the mysterious phenomenon of menstruation involved in all sorts of superstitions and religious beliefs. Probably the most widespread assumption which permeated religious rituals and led to the establishment of curious customs associated with the menses was that menstruation periodically rids the body of woman of something undersirable that has accumulated in the organism, more specifically in the blood. To some it thus was a mechanism of removing an excess of nutriment from the body. According to the Mosaic law the mystery represented a process of purification: the impurities collected in the woman's blood were discharged in the menstrual flux, so that she underwent a recurring series of purifications. To the men of the monasteries, say Crawfurd, menstruation was a symbol of the essential sinfulness and inferiority of women, polluted alike and polluting.

It is not difficult to trace a relationship between such ideas and the more magical beliefs that the menstruous women is possessed by an evil spirit which resides in her blood. Accordingly, by the medium of her memstrual blood she may exert an influence for harm on her environment. The malign spell has at various times and among different races been assumed to exert a variety of potent effects; hence the numerous prohibitions found placed on the female members of the household in the past. Thus is explained the seclusion of women from the cattle and the milk supply at certain periods among the Kafir tribes of South Africa. Frazer says that in Galela women at their monthly periods may not enter a tobacco field, and in Sumatra are forbidden the rice fields for fear of damaging the crop. Whole catalogues of uncanny phenomena attributed to the catamenial state might be enumerated, such as the belief, dating back to the time of Aristotle, that the glance of a menstruous woman takes the polish out of a mirror. Among certain races every house has two doors, one of which is used exclusively by the women during menstruation. Crawfurd naively asks whether "the altogether inordinate apprehensions of both nurse and surgeon as to the evils of operation during the menstrual state are tinctured with the savor of this same superstitious fear."

The idea underlying these customs so interesting in the history of medicine has been summarized by Crawfurd as follows: There resides in the menstrual blood some agent powerful for good or for harm. Most of all is its power over the virility of the male, enfeebling him in the struggle for the survival of the fittest. The spirit of the woman resides in her blood, and is transferable therewith to the male. It is a special aspect and a special application of the universal primitive blood horror, founded on the same belief that the spirit of the person resides in his blood and emerges with it for good or for harm. In addition, there is something unintelligible about menstruation, something uncanny, and the primitive mind explains it as due to some spiritual agency, which may harm the woman if she does not take care of certain precautions, and may pass from her and harm others if they neglect the prescribed precautions.

The periodic changes in the uterine mucous membrane which initiate menstruation are now known to depend on the functional activity of the ovary. The onset of the period coincides with the first production of ripe óva in the ovary; it ceases with the cessation of ovulation at the climacteric or menopause. In cases in which the ovaries have been removed before puberty, menstruation never occurs. Removal of both ovaries from adults usually brings about a premature menopause. Ovulation and menstruation are thus obviously interrelated. Modern theories have usually assumed that menstruation is part of a preparation for the reception of the fertilized ovum. The facts are still too uncertain and conflicting to permit the formulation of a tenable hypothesis. The review of the mystical belief of the past always serves as a warning against hasty generalizations in the more enlightened days of modern science.—*Journal Amer. Med. Assoc.*, July 22, 1916.

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EDITORIALS

HONOR ROLL.

THE FOLLOWING COUNTY SOCIETIES HAD, ON SEPT. 1ST, EITHER EQUALED THEIR LAST YEAR'S MEMBERSHIP, EXCEEDED IT, OR HAD NO DELINQUENTS. THOSE MARKED WITH A * HAVE MADE A GAIN THIS YEAR. ONLY A FEW WEEKS REMAIN BEFORE THE ANNUAL MEETING —HELP PUT YOUR SOCIETY ON THIS LIST.

CALUMET
CLARK
COLUMBIA*
DANE*
DOOR
DUNN-PEPIN*
EAU CLAIRE
FOND DU LAC*
GRANT*
GREEN
IOWA*
LA CROSSE
LANGLADE
LINCOLN
MANITOWOC*
MILWAUKEE*
MONROE
OCONTO
ONEIDA-FOREST-VILAS*
OUTAGAMIE*
PORTAGE
RUSK
ST. CROIX
VERNON*
WAUPACA
WOOD
OZAUKEE*

OCTOBER 4TH.

MEET us at Madison on the above date. Come prepared to remain through the sessions. Don't let anything or anybody lure you back home until the last feature of the splendid program is ended.

Mark the dates Oct. 4th-6th, and be on hand. And don't be a clam when you come. Mix around. Introduce yourself around. Meet as many fellows as you can. Swap your experiences. As we have had occasion to say before, the greatest good which comes to a member is the association with his fellows in a jovial, fraternal spirit.

Come boys, let's all be there for a good old time.

MEETING OF COUNTY SECRETARIES.

ELSEWHERE is printed the program of the meeting of the Association of County Secretaries and State Officers. Fellows, this is truly a splendid program. The papers deal with subjects which cry for solution and which touch everyone of us deeply. We hope the members of the State Society will not fail to attend and discuss these papers. Our active secretary has worked over this program, the idea was his, and it is up to us to show our interest by our actual presence.

PUERPERAL SEPTICEMIA.

IN the July number of the Journal we commented on the frightful mortality among the mothers of Wisconsin due to a disease which has no justification for existence in these days of aseptic technic. We are publishing in another column in this issue an article by Dr. Findley

which is a confirmation and extension of what has been said already.

The question of handling the puerperal woman is one which touches the roots of society. The women of our country have a variety of treatment which includes all degrees of care from that given by the ignorant, dirty midwife to that given by the highly trained obstetrician. The problem of caring for the masses of the women is a serious one and is now engaging the attention of social workers as well as physicians and boards of health. Dr. Taussig (see article page 113) argues for the nurse-midwife. His paper is ably presented and has much in it which is excellent. He realizes that many women in the country districts have the care of the general practitioner who sees and handles all kinds of infectious diseases. The country practitioner has to deal with women who are usually strong and healthy. He works in an atmosphere free from contamination such as is found in a large city. If he is clean in his work there is no reason why he should lose his cases with puerperal fever. As a matter of fact a very able country practitioner who has practised for fifteen years told us that he had never had a case of puerperal fever. He was not boasting and we are sure he was not exaggerating. Unfortunately all physicians who are practising in the country districts have not had even a decent smattering of medical knowledge and all are not honest in their death certificates.

At the meeting of the American Association for Study and Prevention of Infant Mortality which takes place in Milwaukee October 19th and 21st this year, there will be discussion of this problem by one who has made a survey of parts of Wisconsin.

We still feel that the fault lies largely with the old type of commercial medical schools which ground out many incompetent doctors.

The solution of the problem lies in the widest kind of publicity. The Extension Bureau which reaches the farthermost hamlets in the country has a great opportunity to do pioneer service in the campaign of education in regard to puerperal sepsis. It is to be hoped that the Bureau will not let this great chance slip but will plan an extensive campaign for next year's work.

THE NURSES' CLUB HOUSE AND DIRECTORY.

ON another page of this issue is a letter from the Nurses asking for the co-operation of the medical profession in their attempt to give to the profession and public the very highest type of nursing service. We hope that all will read this and learn what the nurses are trying to do. The idea seems excellent and we wish success to their scheme. It should be a help to us physicians and a means of keeping up the standard of the nursing profession.

ARSENOBENZOL.

WE have been informed by the Dermatological Research Laboratory at Philadelphia that they have discontinued the preparation and distribution of arsenobenzol. This is due to the fact that a shipment of salvarsan was received from Germany by the American agents in New York.

The fact is that the makers of salvarsan have the profession by the throat. The drug is protected by patents, so that the firm which makes it can set any figure it likes. Now it costs $4.50 for .6 gm. and unless a very recent shipment has arrived, only .6 gm. ampoules are available.

It is just another hold-up which a monopoly of an almost necessary medicament can get away with.

HIGH BLOOD PRESSURE.

DURING the past few years there has been considerable written on the interesting subject of blood pressure. Up to rather recent time attention was paid only to the systolic or maximum pressure. This is manifestly emphasizing only one part of what I have termed the "pressure picture" and leaves out of account the important factor of the peripheral resistance and the equally important factor of the actual head of pressure which drives the blood toward the periphery to the muscles and organs. In other words the diastolic and pulse pressures have been neglected. The diastolic pressure can now be measured

fairly accurately by using the auscultatory method, that is, placing the bell of a stethoscope over the brachial artery about two centimeters below the arm cuff and hearing the different sounds as the air in the cuff is released, and noting the figure on the mercury or dial instrument when the loud third sound suddenly gives place to a dull tone. One can also see on a dial instrument that at this more or less sudden change of tone the lever suddenly shows a decrease in the amplitude of its excursion with every pulse beat. We find the systolic pressure by blowing up the cuff until no sound is heard with the stethoscope over the brachial artery below the cuff, and noting the figure corresponding to the first sound heard where the air is reduced in the cuff. The difference between the systolic and diastolic pressure is the pulse pressure.

We have observed that there are at least three types of high blood pressure. Type I we call the hereditary type because the patients belong to families in which short, thick-set frames predominate, members of the family have had apoplexy and the patient is of the apoplectic build. The systolic is high, the diastolic is very high (130-140 mm. Hg.) and the pulse pressure large. Type II is the well-known chronic interstitial nephritis. The systolic and diastolic pressures are both high and the pulse pressure large. Type III we call the arteriosclerotic type. Here the systolic pressure is high but the diastolic pressure is normal, that is 80-90 mm. Hg., and the pulse pressure is consequently large.

In the first two types the explanation of the high systolic pressure is furnished, at any rate in great part, by the increase in the peripheral resistance, thus causing the heart to exert more force in order to maintain the circulation in equilibrium. The third type calls for a different explanation because we are not dealing in this type with increased peripheral resistance. For this high pulse pressure I have the following explanation to offer: We know that whenever there is high pulse pressure there is dilatation of the aorta and there is increased size of the cavity of the left ventricle. There is actually more blood thrown out at every systole than is normally discharged into the aorta. Now in the arteriosclerotic type we must presuppose some poison which affects the middle coats of the arteries including the aorta. The effect is a tendency to dilatation without increase of peripheral resistance. The arch dilates, requires more blood to distend it so that driving force toward the periphery will be kept up, this causes an increase in the capacity of the left ventricle. The arteriosclerotic process also affects the vessels of the heart and interferes with the muscle nutrition. As the heart dilates it hypertrophies in order to continue its compensation. The process is a long one. Gradually fibrous tissue replaces lost smooth muscle or elastic tissue in the arteries. Not only are they firm but they are large and tortuous and less elastic. The arch and the thoracic aorta are dilated, tough, more or less inelastic tubes. The blood thrown into such an aorta finds but little pressure exerted upon it to drive it to the periphery when diastole of the heart is present. Normally the highly elastic aorta is stretched at every systole by the charge of blood from the left ventricle and when the heart goes into diastole the aorta contracts powerfully upon the enclosed blood and forces it toward the periphery. The tough, dilated, lessened elastic artery in the fibrous arteriosclerotic acts only as a reservoir and exerts very little pressure forward on its contained blood. The enlarged arteries all over the body have also lost much of their elasticity. Hence it follows that for the circulation to be maintained in equilibrium a large amount of blood must be thrown into the aorta with every heart systole. Large volume output means large pulse pressure or vice versa. And, as a matter of fact, the radial pulse is always large in this class of cases. Here there is a condition where the arteries are dilated and have lost most of their elasticity. It stands to reason that a greater head of pressure is necessary to force the blood through such a series of tubes. Since the peripheral vessels are large and dilated the resistance is not increased, consequently the diastolic pressure which measures the peripheral resistance is apt to be normal. But the increased size of the arterial tree calls for more blood per unit of time, the pulse pressure therefore must increase and this can only happen by an increased systolic pressure. As we have said, the process is a long, chronic one. Thus far it has been my experience to see this group only in persons of fifty years or over, the great majority occurring after sixty years.

I do not believe that this is a condition to be actively treated. If my explanation is correct, and there is pathological evidence to back it, the administration of vaso-dilators like nitroglycerine is not only useless but may be harmful. The vessels are already dilated to their maximum capacity. The process does not call for vaso-constrictors for ob-

vious reasons. The condition is compensatory. It is the reaction on the part of the body to a state of affairs tending to destroy cardio-vascular equilibrium. We should recognize it, classify it and then regulate the patient's life according to the best rules of hygiene and diet. Mercury and potassium iodide in my hands have seemed to make people more comfortable when they have any complaints and the combination of these drugs has seemed to prolong life.

But let me say again, the process is compensatory, the body must have the large pulse pressure and any active interference on the part of the attending physician is not good practice.

A NEW SOCIETY.

THE Confederation of County Medical Societies of northern Illinois and southern Wisconsin holds a "Birthday Party" at Freeport, Ill., Sept. 26-27. This association came into being only in July, 1916. The Executive Committee is composed of the presidents and secretaries of the county societies and the counselors of the several counselor districts in which the counties composing this organization are located. In Wisconsin the counties are—Dane, Green, Lafayette, Rock, Iowa, Grant, Jefferson, Walworth and Kenosha. Three of our counselors in those districts, Drs. F. T. Nye, Beloit; Wilson Cunningham, Platteville; G. Windesheim, Kenosha, are counselors of the new society.

We learn that "it is a union of county medical societies banded together for mutual good, both scientifically and socially. It is designated to take the place of the separate counselor district meetings which have heretofore been held in territory occupied by this society."

The program is a pretentious one for a first meeting. There are clinics at local hospitals and quite an array of papers. It looks most interesting. The membership fee is only $1.00 and any physician can belong, irrespective of his place of residence. Nearly a thousand invitations have been sent out, so that the committee hopes to have a rousing meeting. All are cordially invited to Freeport where real hospitality, a super-edition of the proverbial "glad hand," will be extended to every visitor. Although we deprecate in general the organization of any more societies, if this will rouse interest in friendly relations among doctors we welcome it and wish it a long and useful life.

CORRESPONDENCE

NURSES' CLUB HOUSE AND DIRECTORY.

To the Editor:

We desire through the columns of your professional publication to put before you the ideals of our Club House and Directory.

This may scarcely be necessary, since the amendments to our by-laws explain fully our object. These same by-laws have been mailed to each member of the Milwaukee Medical Association but with probably the usual disposition of printed circulars—hence again this appeal for your co-operation.

The Club House and Directory is the child of the Milwaukee County Nurses' Association, as is tbe Medical Library that of the Milwaukee County Medical Association. Without the interest and co-operation of the collective parents, these children would be compelled to take the "Nelson Cure."

For your child, there is no danger; for ours, without the co-operation of the members of our profession, your good will and that of the public, the danger is very imminent.

We desire that the Club House become, as it were, a clearing house for nursing interests and activities. By this we mean the discussion of all questions regarding our profession, the evolving and executing of means by which better service to the medical profession and the public can be rendered wberever possible.

The Club House is maintained solely by the generosity of the members of the County Association and their friends. It is a home for the nurses, with limited facilities for housing and for feeding all who desire to come; that is, all of those who are members of the club, active or associate.

The large reception room affords a desirable auditorium for the periodical meetings of our associations, as well as offering a place for the entertainment of guests, with more than the privileges of the usual club bouse. Tbe different publications relating to our profession will always be found at hand. There is also a small library.

The Directory accepts any registered nurse in good standing or any graduate nurse who agrees to apply for state registration within the year. We also register practical nurses and male nurses who can give good credentials and are satisfactory to the governing board of the association.

In this way we endeavor to give intelligent and efficient care to the sick. Tbis can be done only if the nurses will put their shoulders to the wheel, giving the best of themselves and thus obtaining from the public due appreciation and the treatment deserved by duty well performed.

The medical profession and public can help by insisting that our standards be of the highest, for it is only the best that each of you would desire to bring into his own home. If the work has been satisfactory, tell us; if not, advise us in any way that will add to our efficiency.

We are proud of the enthusiasm of our county membership, numbering less than one hundred, that can pledge nearly seven hundred dollars as a beginning. We are grateful to the friends who have helped in our benefit and also to the very generous friends who have given us over seven hundred dollars and have loaned us money for our furnishings. These are our only assets.

We consider our debt to be the ability to secure to you and the public intelligent and sympathetic care of the sick.

Our ability to demonstrate to you that these aims and desires were the nucleus of our Club House and Directory, depends entirely upon us and our training schools.

In the nature of things, we must fall short of our ideals but with the co-operation of your profession and the public we will endeavor to be a credit to the community.

STELLA S. MATTHEWS, R. N.

Reception Room—Executive Chambers.

MADISON SESSION

PROGRAM OF THE 70TH ANNUAL MEETING TO BE HELD AT MADISON, OCT. 4-6.

WEDNESDAY, OCTOBER 4TH. MORNING SESSION, 11:30 A. M.

Call to order by the President. Louis F. Jermain, Milwaukee.

Invocation. Rev. Eugene Updike.

Address of welcome. Gov. Emanuel L. Philipp.

Response by the First Vice-President. M. R. Wilkinson, Oconomowoc.

Report of Committee on Arrangements. L. R. Head, Madison.

Report of Program Committee. Curtis A. Evans, Milwaukee.

AFTERNOON SESSION, 2 P. M.

1. Annual Address of President, Louis Jermain, Milwaukee.

2. Acute Appendicitis. Karl Doege, Marshfield, Wis.

3. Chronic Appendicitis. Gregory Connell, Oshkosh, Wis.

4. Appendicitis as a focal infection. J. S. Evans, Madison.

5. Limitation of the X-ray Method in the Diagnosis of Gastro-Intestinal Lesions. Illustrated by Lantern Slides. Dr. Frank Smithies, Chicago, Ill.

THURSDAY MORNING, OCT. 5TH, 9. A. M.

1. Treatment in Hodgkin's Disease Based on Eight Years Experience. John L. Yates, Milwaukee.

2. Some Observations on Ectopic Pregnancy—Based upon 35 Cases Treated by Operation. Chester M. Echols, Milwaukee.

3. Pott's Disease—Diagnosis and Treatment by the Bone Transplant Method. Fred J. Gaenslen, Milwaukee.

4. Blood Group Determination for Transfusion. Louis M. Warfield, Milwaukee.

3. The Regulation of the Heart in Health and Disease. J. A. E. Eyster, Madison.

4. Some Facts Having a Practical Bearing upon the Treatment of Heart Disease. A. J. Patek, Milwaukee.

5. Address in Medicine. Recent Advances in the Study of Heart Disease and their Significance to the General Practitioner. Dr. F. W. Peabody, Boston.

THURSDAY EVENING, 8:00 P. M.

Public Meeting devoted to the Hospital Problem. Addresses will be made by Dr. John G. Bowman,

North Hamilton Street from Capitol Dome.

5. Address in Surgery. The Operation of Cranial Decompression for Certain Intra-Cranial Conditions. Illustrated by Moving Pictures. William Sharpe, New York City.

THURSDAY, 2:00 P. M.

1. Application of Laboratory Methods to Clinical Diagnosis. Illustrated by Lantern Slides. W. D. Stovall, Madison.

2. The Practical Aspects of Recent Work on the Topographical Anatomy of the Heart. C. R. Bardeen, Madison.

Director of American College of Surgeons, Dr. Elward Evans, La Crosse, and Dr. Gilbert Seaman, Milwaukee. There will be a general discussion of this question.

FRIDAY MORNING, 9 A. M.

1. The Artificial Feeding of Infants. A. L. Kastner, Milwaukee.

2. Diphtheria and Its Treatment—a Plea. W. H. Banks, Hudson.

3. Pneumonia in Children. A. W. Myers, Milwaukee.

Assembly Chamber—Capitol.

Looking Toward the City from a Shaded Nook.

Lagoon in Tenney Park.

4. Prenatal and Natal Conditions in Wisconsin. Dorothy Reid Mendenhall, Madison.

FRIDAY AFTERNOON.

There will be a luncheon at Mendota, trip made by automobile. Luncheon followed by clinic and demonstrations.

PROGRAM
ASSOCIATION OF COUNTY SECRETARIES AND STATE OFFICERS,

SENATE CHAMBER, MADISON.

1:30 P. M., TUESDAY, OCTOBER 3, 1916.

A discussion of the following subjects will be held under the leadership of the members of the Council who have prepared papers on them as follows:

1. A plan for a series of clinics to be held in various parts of the state under the auspices of the state and county societies—Hoyt E. Dearholt, Milwaukee.

2. A plan for demonstrations of the newer and a review of the older laboratory work before county societies—J. M. Dodd, Ashland.

3. Suggested outlines of a year's scientific work for county societies holding four, six and twelve meetings—Edward Evans, La Crosse.

4. Plan for a speaker's bureau of Wisconsin's full time medical teachers available for county society programs—H. W. Abraham, Appleton.

5. What can be done to secure uniform equitable fees and their standardization—W. F. Zierath, Sheboygan.

6. Mutual or other investments for physician's savings—M. R. Wilkinson, Oconomowoc.

7. Would a plan for co-operative purchasing through the medium of the state society be feasible—barter and exchange—F. T. Nye, Beloit.

8. Would an old age and disability pension or an endowed home for aged and needy physicians be possible?—Rollo Cairns, River Falls.

9. Would a mutual accident and health insurance plan be feasible?—T. H. Hay, Stevens Point.

10. A plan for a mutual credit and collection bureau—Wilson Cunningham, Platteville.

11. Ways and means of increasing the income of the state society or of establishing funds—T. J. Redelings, Marinette.

12. What more can we do to protect the public and the profession against fads, cults and irregular practitioners?—G. Windesheim, Kenosha.

Madison Board of Commerce.

The Drive Along Sherman Avenue.

MEMORANDA.

1. The House of Delegates will meet in the Senate Chamber, State Capitol, Tuesday evening, October 3rd, at eight o'clock. Delegates must register before the meeting and show credentials. Please see to it that your society is represented.

2. The first general session will be held in the Assembly Chamber, October 4th, at 11:30 A. M.

3. The Association of County Secretaries and State Officers will hold its meeting in the Senate Chamber, Tuesday afternoon, October 3rd, at 1:30 o'clock. This program is on a subject of interest to all, "What More Can the State Society Do for Its Members." All members are invited to come and participate in the discussion. The annual "Ginger Tea" will follow this meeting.

4. The Public Health Meeting will be held Thursday evening in the Assembly Chamber.

5. The registration desk will be in the corridor at the entrance to the Assembly Chamber. Report there on your arrival and receive your badge. This is the only record of attendance and the badge is necessary for admittance to the smoker.

6. The commercial exhibit will be in the foyer outside the Assembly Chamber.

7. Mail and telegrams may be sent in care of the Superintendent of Public Property, State Capitol.

8. *Entertainment*—Wednesday afternoon from 5:30 to 6:30 an informal reception will be held at the Park Hotel parlor. An informal dinner will be served for physicians and their wives at 6:30 at the Park Hotel. The smoker will be held after the dinner with a carefully planned entertainment. During the smoker, a reception will be arranged for the women physicians and wives of visiting members in the ball room of the Park Hotel. There will be music and dancing in case any members prefer to remain there instead of going to the smoker. Thursday afternoon there will be an automobile ride about the drives and parks of the city for visiting women.

9. Friday, after the morning session, there will be an automobile ride about the city which will end at Mendota at the State Hospital, where a luncheon will be served and a talk will be given by Dr. W. F. Lorenz. This will afford an opportunity to inspect the institution and the new State Laboratory.

10. *A Reminder.*—If you have not paid your dues, it is clearly your duty to do so now. The names of delinquents will be dropped from the roll of the society and the mailing list of the Journal, October 1st, and you must be in good standing to register at the meeting.

SICKNESS INSURANCE.

There is a project started in some of the states looking to the introduction of insurance for the sick, just as we have insurance for fire, accident, etc. The movement has advanced only as far as the appointment of commissions to study the matter. There will be serious objections in the way, for sickness is a problematical affair and is largely of an arbitrary character. If a person is insured against sickness, it may be a desirable or profitable experience to be sick, and this will be largely under the control of the insured. It is a great subject and everybody hopes there will be a way to adopt it without its abuses. But, of course, all insurance is subject to abuse, and it is hoped insurance against sickness will succeed in being as free of abuse as the other kinds of insurance.—*Columbus (Ohio) Journal.*

Here is the motto of the New York department of public health:

"Public health is purchasable."

"Within natural limitations a community can determine its own death rate."

That means a community is responsible for the unnecessary deaths that follow its failure to take advantage of every resource of modern training in the organizing of its health department.

If it permits a political health department or a well-meaning but inefficient health department, it is deliberately inviting sickness.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1915-16

L. F. JERMAIN, President

M. R. WILKINSON, Oconomowoc
1st Vice President

M. S. HOSMER, Ashland
2nd Vice President

R. W. BLUMENTHAL, Milwaukee, 3rd Vice President

ROCK SLEYSTER, Waupun, Secretary

DANIEL HOPKINSON, Milwaukee, Ass't Secretary

S. S. HALL, Ripon, Treasurer

Councilors

TERM EXPIRES 1917
1st Dist., M. R. Wilkinson - Oconomowoc
2nd Dist., G. Windesheim - - Kenosha

TERM EXPIRES 1918
3rd Dist., F. T. Nye - - - - Beloit
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1919
5th Dist., W. F. Zierath - Sheboygan
6th Dist., H. W. Abraham - Appleton

TERM EXPIRES 1920
7th Dist., Edward Evans - La Crosse
8th Dist., T. J. Redelings - Marinette

TERM EXPIRES 1921
9th Dist., T. H. Hay - Stevens Point
10th Dist., R. U. Cairns - - River Falls

TERM EXPIRES 1916
11th Dist., J. M. Dodd - - Ashland
12th Dist., H. E. Dearholt - Milwaukee

Delegates to American Medical Association

A. H. LEVINGS, Milwaukee

J. F. PEMBER, Janesville

T. H. HAY, Stevens Point

Alternates

M. E. CORBETT, Oshkosh

EDWARD EVANS, La Crosse

ROCK SLEYSTER, Waupun

Committee on Public Policy and Legislation

J. P. McMAHON, Milwaukee, Chairman

A. G. SULLIVAN, Madison, Secretary

G. H. FELLMAN, Milwaukee
J. McGOVERN, Milwaukee

S. G. HIGGINS, Milwaukee
P. F ROGERS, Milwaukee

A. S. LOEVENHART, Madison
C. S. SHELDON, Madison

Committee on Medical Defense

G. E. SEAMAN, Milwaukee, Chairman

S. S. HALL, Ripon

A. J. PATEK, Milwaukee

Committee on Health and Public Instruction

W. F. ZIERATH, Shoboygan

J. M. BEFFEL, Milwaukee

EDWARD EVANS, La Crosse

Program Committee

CURTIS A. EVANS, Milwaukee, Chairman

OTHO FIEDLER, Sheboygan

ROCK SLEYSTER, Waupun

NEXT ANNUAL SESSION, MADISON, OCTOBER, 1916.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. O'Brien, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	C. L. R. McCollum, Forest Junction	N. J. Knauf, Chilton, Wis.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	C. S. Sheldon, Madison	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. F. Eames, Egg Harbor	T. C. Proctor, Sturgeon Bay.
Douglas	W. H. Zwickey, Superior	W. A. McEachern, Superior.
Dunn-Pepin	F. E. Butler, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	J. C. Baird, Eau Claire	E. P. Hayes, Eau Claire.
Fond du Lac	A. J. Pullen, North Fond du Lac	H. C. Werner, Fond du Lac.
Grant	N. E. McBeath, Livingston	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	J. A. Kiethly, Palmyra	W. A. Engsberg, Lake Mills.
Juneau	C. C. Vogel, Elroy	A. T. Gregory, Elroy.
Kenosha	J. H. Cleary, Kenosha	J. F. Hastings, Kenosha.
La Crosse	H. E. Wolf, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	F. V. Watson, Antigo	J. C. Wright, Antigo.
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	S. M. B. Smith, Wausau	R. M. Frawley, Wausau.
Marinette-Florence	E. E. Axtell, Marinette	R. R. Heim, Marinette.
Milwaukee	Franz Pfister, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D. Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	R. C. Faulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	E. A. Morse, Appleton	W. N. Moore, Appleton.
Ozaukee	O. J. Heuth, Cedarburg	G. T. Savage, Port Washington.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Huibnrt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B. Bock, Sheboygan	Arthur Knauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	J. B. Noble, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	H. A. Jefferson, Clintonville	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. B. Vedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

BRAINARD MEDICAL SOCIETY

The annual meeting of the Brainard Medical Society was held at the Milwaukee County Hospital, Wauwatosa, July 26, 1916. Infantile paralysis was the principal topic of discussion.

The first annual convention of the newly organized confederation of County Medical Societies of northern Illinois and southern Wisconsin, associated with eastern Iowa, will be held at Freeport, Ill., Sept. 26 and 27th. The organization will have, it is estimated, a membership of more than 700. According to arrangements of the committee, clinics at Freeport hospitals will be held both days of the convention, starting at 7 in the morning. Morning, afternoon and evening sessions have been arranged. Among physicians who will address the gathering are: Dr. E. Starr Judd of the Mayo Clinic; Dr. E. Clark Dudley of Northwestern University; Dr. W. A. Evans of Chicago; Dr. B. W. Sippy; Dr. W. L. Noble; Dr. E. B. Cooley and Dr. Arthur Dean Bevan.

The American Association for the Study and Prevention of Infant Mortality will hold its seventh annual convention in Milwaukee, October 19 to 21. Among those who will address the convention are: Dr. Francis S. Bradley and Dr. Grace Meigs Children's Bureau, Washington; Dr. J. G. Wilson, United States Public Health Service, Ellis Island, and Dr. John S. Fulton of Baltimore. Papers on infant welfare work problems in rural communities will be read by Prof. Abbie Marlatt, University of Wisconsin, Miss Elizabeth Kelly and Dr. Dorothy R. Mendenhall of the extension department University of Wisconsin. Dr. G. C. Ruhland is chairman of the arrangement committee and Dr. J. Gurney Taylor is secretary.

GRANT COUNTY

An outing meeting of the Grant County Medical Society was held at Boscobel, Monday, August 21, 1916. The meeting was held at a summer resort on the banks of the picturesque Wisconsin river. The day was hot and dusty, but upon our arrival at this beautiful spot. all discomforts of travel were forgotten, and we enjoyed the cool comforts that nature lavished upon us for the day. A goodly number were in attendance, many coming long distances. We were invited into one of the cottages with the welcome announcement that dinner was ready. Here we were served with a variety of good things that would satisfy an epicure, and in quantities measured only by our appetites. After dinner we adjourned to a nearby cottage, and listened to the program. Remarks by our councillor, Dr. W. Cunningham. A paper by Dr. J. C. Doolittle—An Obscure and Interesting Case of Appendicitis, and a paper, Appendicitis in Children, by Dr. E. H. Spiegelberg. These papers were very interesting and elicited free discussion. We had with us as guest of honor, Dr. Rock Sleyster of Waupun, secretary of the State Medical Society, who gave us an inspiring talk on Medical Organization and Medical Defense, plainly showing the benefits to be derived, individually and collectively, from these organizations. Dr. Sleyster is an enthusiast in this work, and imparted a revival of interest to all present. He drove from Platteville to Boscobel with Dr. Cunningham, and realized that distances are great in Grant County, and complimented us upon the large average attendance we have had at our regular meetings. A unanimous vote of thanks was given Dr. Sleyster for his efforts to be with us. After a most interesting time spent here, the meeting adjourned, to spend the rest of the day in sociability and bathing in the waters of the river. We shall always remember this meeting as a red letter day of Grant County Medical Society, and Boscobel physicians already famed for their hospitality, added another strong link in the fraternal chain of United Brotherhood. A unanimous vote of thanks was extended to them for their splendid entertainment.

M. B. Glasier, *Secretary.*

RACINE COUNTY.

The regular meeting of the Racine County Medical Society was held June 22nd, 1916, at the Lakeside Hotel, Brown's Lake, Racine County. The meeting was called to order by the president, Dr. S. C. Buchan. The minutes of the previous meeting were read and on motion approved. Dr. W. G. Hyde of Racine was duly elected a member of the society. Dr. A. J. Patek of Milwaukee gave a fine address on the subject of "Some Considerations of Heart Disease." The attendance was fair.

Susan Jones, *Secretary.*

The following resolutions have been adopted by the Racine County Medical Society:

Whereas, there seems to have arisen in the minds of some of the members of the medical profession an uncertainty as to the attitude of mind the profession should maintain toward the many and various types of the irregular practice of the healing art, which during recent years have sprung into existence; and

Whereas, all these types of the irregular practice of so-called healing are founded on wrong. irrational, and unscientific premises, on which to base a scientific development of knowledge in the art of healing; and

Whereas, the regular profession of medicine always has an open mind for the reception of all really scientific knowledge, and has within itself the means of testing and passing on the validity of claims relating to the art of healing; and

Whereas, this irregular practice of the art of healing has been weighed in the balance and found wanting in all the basic and essential elements in the pursuit of truth and the acquirement of knowledge, and has impressed the scientific mind devoted only to truth, as savoring of a combination of falsity, deception, mercenary motives and ignorance; therefore, be it

Resolved, that the Racine County Medical Society here and now reaffirm its allegiance to the same ethical principles that have governed the medical profession in years

gone by; and that we consider it unethical for a member of the regular school of medicine to affiliate in any professional way with any practitioner of these irregular schools, whose methods and whose scientific attainments we cannot recognize, and whose creed is unscientific, full of errors, and adds nothing to the knowledge of true medicine or to the legitimate practice of the healing art in the regular schools. Be it further

Resolved, that a copy of these resolutions be transmitted to the various medical societies and councils of the state, with a request that a similar attitude of mind be maintained. Be it further

Resolved, that a copy of these resolutions be published in the Wisconsin Medical Journal and the Journal of the American Medical Association.

Dated, Racine, Wisconsin, June 22, 1916.

WALTER S. HAVEN,
GEORGE W. NOTT,
L. E. FAZEN,
Committee.

WALWORTH COUNTY

The mid-summer social meeting of the Walworth County Medical Society was held at Lake Geneva, on August 26, 1916. Dr. W. A. Evans, Chicago, addressed the Society on Infantile Paralysis, a timely subject, which, of itself, made attendance worth while. This was our annual picnic meeting at Walworth County's famous resort. The members of Racine and Kenosha counties with their families were invited to be with us. Dinner was served at the Lake Geneva Hotel at 12:30, after which boat rides around the lake, and other diversions were in order.

EDWARD KINNE, *Secretary.*

NEWS ITEMS AND PERSONALS

DR. JOSEPH A. RENE, formerly of Superior, but for the past four years in charge of a hospital at Mazatlan, Mexico, has returned to the United States.

DR. SARAH I. MORRIS, Madison, was the guest of honor at a luncheon given in Scranton, Pa., July 5th.

DR. J. C. WRIGHT has been elected health officer of Antigo, to succeed Dr. E. E. Couch, resigned.

DR. F. W. SACHSE, Hartford, and DR. W. E. BUCKLEY, Glendive, Mont., have formed a partnership for the practice of their profession at Hartford.

DR. HUGO F. MEHL, Milwaukee, has been appointed to the United States Medical Reserve Corps, after having passed the necessary examination.

DR. G. C. RUHLAND, Milwaukee, has passed the examination, and is now enrolled as a member of the government army medical reserve corps.

DRS. EDWARD EVANS and ADOLPH GUNDERSON, La Crosse, have been appointed delegates to the Mississippi Valley Conference on Tuberculosis, which meets at Louisville, Ky., October 4-6th.

DR. E. R. MURPHY, Crandon, has returned from a two-years' stay in Alaska. Dr. Murphy has not definitely decided to locate again in Wisconsin, and may return to Alaska for another year.

DR. LLOYD W. JOHNSON, Augusta, recently sailed on the French Liner Tourraine, for Bordeaux, France. From there he will go to Paris and enter the American Ambulance Hospital.

DR. THOMAS O'BRIEN, St. Nazianz, is defendant in a $7,500 damage suit brought by Fred Jungwirth, as guardian of John Jungwirth, a minor. It is alleged that Dr. O'Brien failed to care properly for an injury to a finger, and that as a result amputation was necessary.

DRS. H. D. DIESSNER, Chaska, Minn., and A. M. AAUES, Red Wing, Minn., are contemplating the establishment of a hospital at Washburn, Wisconsin.

Representative men of Ladysmith met July 26th to discuss the plans to provide a modern hospital for the city. It was decided to conduct a campaign to raise $50,000 for the erection and equipment of the hospital which is to be known as St. Mary's Hospital, and will be conducted by the Sisters of the Servite Order.

Plans for the Pen Bryn Sanitarium to be established on the north shore of Pewaukee Lake, are ready. The sanitarium is to cost about $60,000. Dr. J. W. Coon will be in charge.

The State Board of Control announced that there were 7,914 insane under public care in the state, July 21st.

The total number of cases of infantile paralysis

reported to the State Board of Health up to August 12th was thirty-eight. There have been four deaths.

Reedsburg has secured free medical examination in the public schools. The following is the plan to be followed: 1. A committee of three physicians will act as an examination board. 2. The city's dentists will set aside a time for the examination of the children's teeth. 3. The parents will receive a report of examination from the superintendent of schools. 4. Upon receiving these reports, parents are free to do as they see fit, but it is recommended that they remedy defects if possible.

About 730 Wisconsin physicians made use of the state bacteriological laboratory at Madison during the last three months. In the last year they sent over 10,000 specimens to the laboratory for analysis. Classified as to disease, the number of specimens analyzed so far this year include: Diphtheria, 2,187; typhoid fever, 1,184; para typhoid, 492; sputum, 3,720; rabies, 22; water, 876; miscellaneous, 634. During the recent typhoid epidemic at Milwaukee about 7,000 doses of typhoid vaccine were sent to that city. The laboratory has been in existence since 1902.

A new and quicker method for handling diphtheria media for physicians of the state has been put into effect by the state laboratory of hygiene. Its object is to make laboratory diagnosis available much sooner than herctofore. In the past, swabs for diphtheria have been mailed to the laboratory there to be placed in culture media for the incubation of the suspected organism. Hereafter physicians will receive two tubes of culture media and two swabs, with instructions to place one swab for the nose in one tube of culture media, and the other swab, for the throat, in the other tube, and mail to the laboratory. This will allow the organism to grow while in transit to the laboratory, instead of developing after reaching there. By this process the laboratory is enabled to return reports from 18 to 24 hours earlier than before. The laboratory is also advising physicians to read carefully and follow more closely its directions for sending specimens and making use of its facilities.

The government of the United States, in conjunction with municipal, county and state health officials in practically every commonwealth of the country, is planning the most colossal health survey ever undertaken. The purpose of the movement, which is comparable in magnitude to a national census, is to throttle the epidemic of infantile paralysis and to prevent other epidemics. The decision was arrived at because of the increasing spread of the disease, which has jumped the Mississippi river.

MARRIAGES

Dr. Thomas J. Sheehy, Tomah, and Miss Mary Broadwell, Alpena, Mich., on August 4th.

Dr. Greve Harkness, Waukesha, and Miss Florence Trumpf, Reedsburg, on August 16th.

DEATHS

Dr. John B. Murphy, Chicago, died suddenly on August 11, at Mackinac Island, Mich., while on a summer outing. An attack of heart disease was the immediate cause of death. John B. Murphy was born in Appleton, Wisconsin, on December 21, 1857. He was educated in the public schools, the University of Illinois, Rush Medical College, and Germany. Dr. Murphy was president of the American Medical Association in 1913 and elected the same year to be president of the Clinical Congress of Surgeons of America.

Dr. L. B. Shehan, Superior, died on July 29, 1916, aged 59 years. Born at Turner, Maine, on June 16th, 1855, Dr. Shehan received his early education at Gould's Academy. Later he attended and graduated from Amherst College. He then attended Bowdoin College, where he studied medicine, graduating in 1884. After a year's hospital training in New York City, Dr. Shehan came west, locating at Black River Falls. In the fall of 1888 he located at Superior, and resided there up to the time of his death.

Dr. E. E. Berry, a resident of Platteville for more than fifty years, died August 11, 1916, aged 87 years. Edward E. Berry was born in Chautauqua, New York, May 28, 1829. He acquired his academic education at Galena, then studied medicine under Dr. Carver, entered Rush Medical

College, from which he graduated with the class of 1858. In 1862 he enlisted from Shullsburg, Wisconsin, in the 33 Vol. Co., under J. B. Moore, where he served as a private, then hospital steward until the war ended. He was married in July, 1866, to Helen M. Lee of Shullsburg.

Dr. H. E. Lindsay, Whitewater, died on August 4th, aged 77 years. Dr. Lindsay suffered a stroke of paralysis two years ago, from which he had partially recovered, and a second stroke three months ago was the direct cause of his death. Hugh Edson Lindsay was born at Mercer County, Pa., June 5, 1839, of Scotch-Irish parentage. When three years old he was brought to LaFayette County. When 19 years of age he joined a party of emigrants and journeyed via prairie schooner to California to search for gold. The following eight years were spent in California and Nevada. At Carson City, Nev., he was superintendent of a gold mine, and judge of the first election ever held in Nevada. Upon returning to Wisconsin he entered Rush Medical College, graduating in 1869. He began practice at Avoca, Wisconsin, remaining there six years. Dr. Lindsay came to Whitewater from Avoca in 1881, and was in active practice there until four years ago, when he gave up his country practice, and confined himself to city work. He took a prominent part in city affairs, serving as health commissioner and on the school board.

REMOVALS

Dr. Carrie A. Frost, Chippewa Falls to Almond.

Dr. H. P. Weiland, Madison to Monroe.

Dr. O. S. Canright, East Troy to Harkens, Ohio.

Dr. F. B. Taylor, Lodi to Madison.

Dr. Ernest E. Couch, Antigo to Clintonville.

Dr. F. J. Stern, Schlesingerville to Iron Ridge.

Dr. S. E. Hutchins, Trempealeau to Whitehall.

Dr. P. L. Gaillardet, of Formosa, Kansas, has located at Neenah.

Dr. G. F. Scheib, Fond du Lac, has disposed of his practice to Dr. W. H. Folsom of Chicago, and will locate at Urbana, Ill.

Dr. D. D. Flower, Park Falls, has disposed of his practice to Dr. O. A. Nelson of Winter, and will locate at Kennan.

Dr. G. Warren Newell, who for some time has been located at Peru, Ill., has formed a partnership with his father, Dr. G. E. Newell, and they will open an office for the practice of their profession at Waukesha.

OBITUARY.

Dr. John B. Murphy.

(1857-1916)

The readers of the Wisconsin Medical Journal will have especial reason to feel the loss which our profession has sustained in the death of John B. Murphy, for he was a native son of our state. Born in Appleton, December 21st, 1857. He was one of a very large number of Wisconsin men who have won distinction both national and international, in Chicago, but none attained more universal recognition.

The facts of Dr. Murphy's brilliant career are as familiar as household words. He needs no praise from us but we gladly honor him for his remarkable achievements, which are almost too well known to require repetition. In several departments of surgery he was *facile princeps*. One need but mention the "Murphy button"; blood-vessel anastomosis; nerve splicing; lung surgery; including "artificial pneumothorax," (controverted, but now well-assured in value), bone and joint surgery; his "Clinics," written and spoken, were of great value to the medical world. He was a most able teacher, a brilliant operator, a superior administrator and advocate of hospital standardization. The mere mention of his titles, of the degrees conferred upon him by institutions of learning and of his membership in scientific societies, and the enumeration of his long list of valuable publications would fill an important and interesting page in contemporary medical history.

His winning personal traits were felt by all who came within his influence. Few men enjoyed a

wider circle of enthusiastic friends. Foes, too, he encountered at times, ready as he was to contend for causes dear to his heart and many were the victories he won. He was a man of earnest, religious life and character, and only recently, when visiting Rome, had the highest honors which a layman can attain in the Catholic church bestowed upon him by the Pope in person.

The joy of living was eminently his throughout his strenuous career—even in the later years when suffering in health from aoritis and coronary sclerosis, which finally brought the end, which we sadly lament.

The spirit in which he lived and labored is well expressed by the lines by Thomas Carlyle,

"The future hides in it
Gladness and sorrow,
Still we press through,
Naught that abides in it
Daunting us—Onward!"

After life's fitful fever we cannot doubt he sleeps well, and we who are poorer for his loss will long remember him with admiration and growing appreciation of the splendid legacy he has left to our profession and to the world.

RICHARD DEWEY.

ABSTRACTS

ON GUN SHOT INJURIES OF THE TEMPORAL AND FRONTAL REGIONS AND ORBIT. Gilbert, W., München. (Arch. f. Aug., 80, p. 236). Of the injuries of the skull those of the temporal and frontal regions, besides those of the occiput, are of the greatest interest for the ophthalmologist. For they do not only indirectly concern the eye as most other shots of the skull, but very often, sometimes even regularly the eye and its adnexes are also injured and the course of the ocular injury may be influenced by the cerebral lesion. G. reports his experience with these injuries, made at the front at sanitary companies and field hospitals, including only those he could observe from beginning to a certain termination of the treatment. In all more extensive injuries G. found it best to open the wound wide and remove larger splinters of bone. Sometimes the method of Krönlein was necessary. Of 8 injuries of the temporal region and orbit, excluding transverse shots, only one died. The eye complications were three times ruptures of retina and chorioid, twice internal hemophthalmus, once ruptures of the cornea, once perforation of the cornea and neuroparalytic keratitis. In these two cases exenteration was performed.

The injuries of the frontal and fronto-orbital regions were much more serious. G. considers his cases under two groups: 1. With entrance of the projectiles at the upper temporal margin, and 2, entrance and through shots at the region of the frontal sinus. The ocular complications of the 15 cases were in six loss of the eye through perforating injury or rupture, in two dislocation of the eyeball with subsequent phthisis, in two transient exophthalmus by orbital hemorrhages, in one bilateral amaurosis from destruction of the chiasm, besides tears and regularly larger ecchymoses of the lids. Fifty-three per cent. of these died. C. Z.

PERSISTENT PUPILLARY MEMBRANE WITH PULSATING BLOODVESSELS. Köllner, H. (From the eye clinic of Prof. K. Wessely in the University of Würzburg. Arch. f. Aug., 80, p. 245). While the right eye of a woman, aged 53, was perfectly normal, K. saw on focal illumination in the center of the pupil a thin, bluish white, irregularly shaped, membrane from which threads extended in typical fashion to the arcades at the region of the small circle of the iris, which markedly projected over the pupillary portion of the bluish grey iris. In two of the lower strands a red blood vessel in the whole extent of each could be seen with the binocular loupe of Zeiss. Both strands showed jerky movements synchronous with the pulse, while the other parts of the pupillary membrane remained at perfect rest.

The case furnished an interesting observation on the action of eserin on the blood vessels of the eye, corroborating the experimental investigations of Wessely on the eyes of rabbits, who found that eserin contracts the superficial vessels of the conjunctiva and cornea and dilates very much the blood vessels in the interior of the eye. In consequence of this hyperemia the composition of the aqueous is changed and the intraocular tension increased, as also several times observed in chronic glaucoma.

After instillation of two drops of a 1% solution of eserin the red vessels in the strands were not only more marked, but were visible to a much larger extent. They did not form a loop, but both crossed the pupillary membrane to the trabeculae at the upper half of the iris. Also in almost all other previously apparently avascular threads of insertion of the membrane now red blood vessels had emerged. This hyperemia had not changed after 40 minutes, when the observation was discontinued. The pulsation was now not visible, probably because the threads of insertion were relaxed owing to the miosis.

K. recommends the eserin experiment for other cases of persistent pupillary membrane. Then possibly vessels filled with blood will be discovered, which without artificial hyperemia might as heretofore escape observation, even under strong loupes. Perhaps it may be found, that the preservation of blood circulation plays an important rôle for the persistency of the pupillary membrane. A colored plate illustrates the condition. C. Z.

BOOK REVIEWS

Post-Mortem Examinations. By William S. Wadsworth, M. D., Coroner's Physician of Philadelphia. Octavo volume of 598 pages with 304 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, $6.00 net; Half-Morocco, $7.50 net.

William Wadsworth has a highly developed gift of observation and a pen which points the lessons to be learned in a post-mortem laboratory. From his years in this field of work, he has put in an easily read book, not only his idea of the best methods of working and the facts to be observed, but he makes one feel how often we conduct a case anxiously to its end and fail to profit by the experience, because we stop at the door of the autopsy chamber.

We are again reminded that the pathologist has "last say," and that we should hear him oftener. In this line of work this book stands out as the most readable and satisfactory of any we know.

E. A. S.

The Treatment of Diabetes Mellitus, with Observations Upon the Disease Based Upon One Thousand Cases. By Elliott P. Joslin, M. D., Assistant Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Collaborator to the Nutrition Laboratory of the Carnegie Institution of Washington, in Boston. Octavo, 440 pages, illustrated. Cloth, $4.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The past few years have so changed our conceptions of Diabetes that the old books have become of only historical interest. The time was ripe for a book dealing with the treatment of the condition from the modern ideas, and such a book Dr. Joslin has written. No one in this country is better qualified to speak with authority than he. His wide experience, his own researches and his intimate association with active workers in the Nutrition Laboratory have given him splendid material for a book. He has made excellent use of all. The book is divided into seven sections as follows: I. Statistical Studies Upon the Course and Treatment of Diabetes Mellitus; II. Important Factors in the Treatment of Diabetes Mellitus; III. The Examination of the Urine, Blood and Respiration in Diabetes; IV. The Diet in Health and in Diabetes; V. Treatment; VI. Aids in the Practical Management of Diabetic Cases; VII. Foods and Their Composition.

Besides being a clinical monograph, it is a complete laboratory manual for the examination of urine and blood and alveolar air in diabetes, and it has a chapter particularly interesting to nurses and dietitians.

We have read this book with great interest and profit and we wish to recommend it most highly to our fellow practitioners. As its name implies, it is not a clinical treatise. It is supplementary to such an elaborate monograph as that of Naunyn or Van Noorden. In spite of the many strictly scientific problems discussed, there is so much that is useful to the diabetic himself in the book that it could well be read by all diabetics.

The Umbilicus and Its Diseases: Embryology, Anatomy, and Diseases of the Umbilicus Together with Diseases of the Urachus. By Thomas S. Cullen, Associate Professor of Gynecology in the Johns Hopkins University. Large octavo of 680 pages with 269 original illustrations and 7 plates by Max Brodel and August Horn. Cloth, $7.50, net; Half Morocco, $9.00, net. W. B. Saunders Company, Philadelphia and London, 1916.

Until we looked over this book, replete with the most superb illustrations, we had no conception of the importance of the puckered button in the center of the abdomen, known as the umbilicus.

The first chapter on the Embryology of the Umbilical Region is a splendid discussion of the subject of human embryology. Dr. Cullen takes up seriatim every disease known to have occurred at and around the umbilicus. There are four pages of illustrations of 60 normal navels. There are 39 chapters, some of the headings are, Umbilical Infections in the New Born, Umbilical Hemorrhage, Congenital Polyps, Meckel's Diverticulum, Fecal Fistulae at the Umbilicus, Abscess in the Subumbilical Space, Umbilical Tumors, The Urachus, Remnants of the Urachus, Malignant Changes in the Urachus, Tuberculosis of the Patent Urachus, etc., etc.

The volume is quite heavy, the weight being both in actual paper and in words, but there is no doubt that for a long time to come this book will be the authority on Diseases of the Umbilicus.

DO YOU KNOW THAT

One million two hundred thousand Americans die each year, it is estimated?

Heart disease, pneumonia and tuberculosis cause more than 30 per cent of deaths?

Sickness lowers earning capacity?

The U. S. Public Health Service is the nation's first line of defense against disease?

Disease is the nation's greatest burden?

Sunlight and sanitation, not silks and satins, make better babies?

Low wages favor high disease rates?

A female fly lays an average of 120 eggs at a time?

THE UNITED STATES PUBLIC HEALTH SERVICE ASKS DO YOU

Believe in national preparedness and then fail to keep yourself physically fit?

Wash your face carefully and then use a common roller towel?

Go to the drug store to buy a tooth brush and then handle the entire stock to see if the bristles are right?

Swat the fly and then maintain a pile of garbage in the back yard?

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ORIGINAL ARTICLES

ANNUAL ADDRESS OF THE PRESIDENT OF THE WISCONSIN STATE MEDICAL SOCIETY.

BY LOUIS F. JERMAIN, M. D.,

MILWAUKEE.

In assuming as your President, the time-honored duty of presenting to you for your consideration the annual address, my first desire is to express my profound appreciation and gratitude for the high and unmerited honor you have conferred upon me. The elevation to the presidency of one's own State Medical Society indeed constitutes the acme of any physician's ambition, implying as it does the respect and esteem of those whose confidence we most earnestly desire and cherish. The only real reward to the physician is the consciousness of duty well performed, of services efficiently rendered, and the confidence and respect of his colleagues.

Permit me also to assure you of a sense of responsibility and of my own limitations, and to beg of you your hearty co-operation and support to the end, that the 70th session of this Society may redound to the honor and edification of its membership.

It has been my good fortune to enjoy the close association of a considerable proportion of the prospective and active medical profession of this State for many years, hence I may be pardoned for choosing to dwell somewhat at length upon questions and problems affecting the members in their relation to each other, and to the public.

No one will at present deny that since the reorganization of The American Medical Association much of the bitterness and personal hostility of former days has disappeared, and that while the golden rule is not always as it should be, our code of ethics, the members of the medical profession are decidedly more charitable and tolerant in their relations with each other. Where formerly it was rather the exception for two or more physicians to labor side by side, in peace and harmony, in the same community, it is now fast becoming the rule.

The important forces operative in the production of this better relationship are: the county medical society; higher and better medical education; and as a direct result of these, the gradual growth of the scientific as opposed to the commercial spirit in medicine.

THE MEDICAL SOCIETY.

In the county medical society the best opportunity is offered for the cultivation of that friendship and unity so essential to the dignity and usefulness of the medical profession. It is here that that stimulus to scientific study and critical observation, which averts stagnation, and makes of us better and abler men, is received. No physician can persistently isolate himself from his colleagues in the medical society, without developing distrust, animosity, and suspicion. The county societies are the pillars supporting the entire superstructure of medical organization, and upon their strength depends the strength and usefulness of our state and national associations. The county society is essentially the only post-graduate school for a large percentage of our rural practitioners, and an active membership and participation in the work of the local society, insures the same activity in the larger medical organizations.

This Society may well be proud of its membership, embracing as it does 73 per cent. of the total number of physicians in the State—the highest percentage of any state in the Union. This happy achievement is the result chiefly of the energy, activity, and loyalty of the past and present secretaries of the State and component County Societies. It signifies a profession cognizant of the benefits accruing from membership. All medical men are eager to learn, if opportunity presents, and instructive programs in county and state societies, if provided, are the most certain means of increasing the membership.

THE SOCIETY A FACTOR IN EDUCATION.

The most important function of the Society is education. It is a truism that the Society, speak-

ing collectively, and the doctor individually should be what the name implies, a teacher.

Through the efforts of the Council on Medical Education, supported by the medical profession generally, undergraduate medical education in the United States has reached a plane approximating that of European countries, and although much remains to be done especially in the direction of better methods and facilities for clinical instruction and better correlation of fundamental and clinical subjects, we may truthfully say that today the medical profession is attracting the best youth of the country, and with prospects brighter than ever before.

However gratifying the elevation of the standards of undergraduate medical education may be to us, we must not forget that a medical course is but the beginning of the physician's education, and that one of the most difficult problems in medical education is the improvement of the men and women already in practice. Efforts to meet this need are now being made in many states, and it is in the direction of opportunity for graduate and extension work at home that the State Society can be of the greatest service to its members.

For many years our State University, through its extension division, and the Wisconsin Anti-Tuberculosis Association have been the only organized agencies in the State to which an appeal for extension instruction in up-to-date medical science could be made. Following the splendid recommendations of the retiring President, Dr T. J. Redelings, and the appointment of the Committee on Public Health and Instruction, steps were taken by this Committee in conjunction with the aforenamed agencies which promise to bring graduate instruction to the most remote sections of the State.

Teachers from the two medical schools can easily be secured to conduct clinics, give courses of lectures on special subjects, and demonstrations of laboratory and clinical methods of diagnosis. The laboratories of the schools are open for the pursuit of any special investigation, for review, or a renewed course in the fundamental sciences of medicine.

Our large hospitals of the State, both public and private, should be utilized to a much greater extent for graduate instruction in Surgery, Medicine, Neurology, Psychiatry, and General Diagnosis. What better facilities for training in pulmonary examination and the early diagnosis of pulmonary tuberculosis can be desired than that afforded by our numerous and splendid State and County tuberculosis sanatoriums? Where can better opportunity be found for graduate work in Neurology and Psychiatry, General Surgery, Medicine, and Diagnosis, than at such institutions as the Northern and Mendota Hospitals, the Milwaukee County and other large and well equipped hospitals in the State?

Boards of Administration and Control should be impressed with the importance and mutual advantages to be gained by opening these institutions to the profession for graduate study and training, and placing in charge of them men and women educators qualified to impart the special instruction desired, and to utilize the valuable material at their disposal to this end, and to the end that the sum total of scientific medical knowledge may be augmented.

SECTIONAL ACTIVITY OF THE STATE SOCIETY.

At a significant meeting of Presidents of State Societies held in Detroit, in June, for the purpose of discussing ways and means of improving our state meetings and making them more instructive and attractive, many valuable suggestions and experiences were offered. The one plan that created much interest and met with general approval especially among representatives of the more populous states, was that of the division of the State Society into sections.

I desire at this time to present for your careful consideration the following scheme of sectional activity of the State Society, fully convinced that its adoption will appreciably widen the scope of usefulness, without in any manner sacrificing the broadening influence of a general session, and will again cement into one compact working body the State and other special societies which have sprung into existence, not of animus, but of a desire for more opportunity and closer association of men engaged in special lines of work.

The annual meeting of the Society to be held as per constitutional provision.

The entire first day to be devoted to general sessions.

During the entire second day, and the forenoon of the third day there shall be meetings of the following sections:

1. A Surgical Section, to comprise General Sur-

gery, Genito-urinary Surgery, Orthopoedic Surgery, Gynecology, Obstetrics, and Roentgenology.

2. A Medical Section, to comprise Internal Medicine, Pediatrics, Neurology, Psychiatry, Dermatology and Syphilis, Materia Medica and Therapeutics, Hygiene, Preventive and Social Medicine.

3. An Oto-ophthalmologic Section, to comprise Eye, Ear, Nose and Throat, and Stomatology.

During the afternoon of the third day again general session for the consideration of subjects of interest to the entire Society.

Each section to elect a chairman of the section who shall preside over the meetings, and a secretary who is to perform the usual duties of such an officer.

Any member in good standing in the State Society may enroll in any section of the Society.

The program committee shall be composed of the President and Secretary of the Society, the Chairmen of the various sections, and one other member selected by the President, who is to act as Chairman of the program committee.

FUNDAMENTAL MEDICAL AND ALLIED MEDICAL SCIENCES.

From time immemorable, it has been the lot of science to be misunderstood, and even the physician dealing largely with practical problems is apt to look askance at the men and women in science and research, forgetting what medicine owes to these enthusiasts who devote their lives to a calling much less remunerative if not attractive, and yet equally or more productive than practical medicine or surgery. Bearing in mind what medicine owes to science and the scientific investigator, a closer relationship and a heartier co-operation between these forces is greatly to be desired.

The advancement in the standards of medical education has brought scientists to our State, many of whom although not graduates in medicine, nevertheless should be admitted to membership—restricted to participation in the scientific work of the Society, and thereby given opportunity to impart first hand the results of their labors, and in return receive from the practising physician and surgeon inspiration and stimulus. This same privilege of participation in the scientific work might be extended to that splendid group of workers in preventive and social medicine.

Modern medicine means more than the mere care of the sick and injured, it touches and embraces all phases and activities of society, and the significance of hygiene, preventive and social medicine, in the uplift of society has perhaps been more fully grasped by them than by most medical men.

It therefore behooves the medical society to avoid being too exclusive. Close contact with the workers in the fundamental and allied medical sciences is elevating and broadening in its effect upon all concerned, and will do much to convince the public that their interests, as well as our own, are guarded and fostered by the medical society.

HOSPITALS.

High standards are as essential in hospital management, equipment, and conduct as in the medical school. Bearing this in mind, the enormous increase in the number of hospitals in small cities and towns of our State, within recent years, must give rise to some concern. Are all these hospitals conducted as they should be solely in the interest of the patient, or rather, for the convenience and benefit of the physicians in the community? Patients in need of a surgical operation or other hospital care, naturally prefer to enter an institution in as close proximity to their homes as possible, and should not be denied this privilege, providing competent and experienced nursing and surgical and medical service are maintained at such institutions. Chiefly in the interests of the interne, the Council on Medical Education of the A. M. A. has conducted an examination of the hospitals of the United States. Of the fifty or more hospitals in Wisconsin, only nine appear on the approved list prepared by the Council. In the interests of the general public, would it not be well for the State Society, through a committee on hospitals to conduct an examination, and by way of competent advice and suggestion, cheerfully given, render such aid as may help to bring about improved conditions in the hospitals of our State?

MEDICAL PRACTICE ACT.

No one can deny that in recent years our Medical Practice Act has been weakened by the granting of special privileges. Legislators are prone to yield to the argument of drugless healers, and others who lay claim to some peculiar form of healing diseases. These should be permitted to do so, as long as the public wants them. This leads, however, to exemptions and special privileges. The educated physicians are asking for restrictions for

themselves, and are given them. The ignorant are asking for exemptions, and are granted them. This although galling, may be a blessing in disguise, for the wider and deeper the gap of education, efficiency, honesty, and morality between the regular and irregular becomes, the sooner may the public and the legislators realize that after all health and life, in order to be secure, must be intrusted to the educated and to no other. The first fundamental provision that should be incorporated into every medical practice act must be based upon educational accomplishment, both fundamental medical, and cultural.

No one who has the interests of the public at heart, can advocate anything but the same fundamental educational standards for all who pretend to diagnose and treat disease, without regard or distinction for school or sect.

The one supreme test for medical practice should be education and science, not cult; honesty and efficiency, not therapeutic sectarianism. Entirely too much stress has been laid in the past, upon schools of practice or schools of medicine, and battles have been waged over the question of superiority of one form of treatment over another; and thereby the public has been misled into the belief, that objection on the part of the regular profession to the granting of special privileges was based on therapeutic differences, and not upon a desire to afford a much needed protection to the public.

One need not be a therapeutic nihilist to voice the sentiment of Osler when he says: "In the fight which we have to wage incessantly against ignorance and quackery among the masses, and follies of all sorts among the classes, diagnosis, not drugging, is our chief weapon of offense. Lack of systematic personal training in the methods of recognition of disease leads to misapplication of remedies, to long continued treatment, when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us, in the eyes of the public, on a level with the empiric and quack."

A more lively appreciation of our duties and responsibilities in the field of Preventive and Social Medicine in all its phases; greater effort in the direction of painstaking systematic examinations and consequently more accurate diagnosis; and a wider application of all rational, physical, and mechanical therapeutic measures, will do much to attract to regular medicine, and secure that recognition and support from the public, to which it alone is entitled.

The common practice of granting charters with authority to confer degrees, to institutions, without careful investigation, and insistence upon such equipment and finances that will insure adequate courses leading to the degrees, should be stopped.

Our State should possess laws giving it adequate check on the chartering and subsequent conduct of all institutions granting degrees, with power to revoke the charter, and close the doors of any institution found to be surreptitiously or fraudulently conducted.

FULL TIME EXECUTIVE SECRETARY.

With the activities in the interests of the profession and the public constantly multiplying, the time seems at hand when, in order to secure a maximum of efficiency in the conduct of affairs, a full time executive secretary should be secured for the Society.

The manifold organizative, educational, editorial, legislative, publicity and defense duties are rapidly becoming incompatible with active general or special practice, and members of the Society however competent and willing to sacrifice their time in the discharge of these duties should not be required to do so. The business of the Society is big business, and requires the undivided time and energy of a competent secretary in whom the ever widening duties could be vested, with assurance of greater accomplishment in all directions.

The annual dues of the Society may have to be increased to accomplish this much desired change, but greater efficiency of administration, and increased service to the members will doubly compensate for the additional contribution.

SOCIAL INSURANCE.

In the broad, world-wide movement for the conservation of human health and happiness, and the betterment of society, the medical profession has taken a leading part in the past, and will do so to a greater extent in the future.

All insurance has for its object the distribution of individual losses through large numbers of individuals, thereby alleviating the effect of such losses, and preventing destitution among the stricken members of society.

Within the last five years, 33 states have enacted

Workmen's Compensation Laws, and the American Association for Labor Legislation which has been so active in securing the enactment of these measures, has prepared a tentative draft of a health insurance act, to be introduced in a form modified to meet the conditions and requirements of individual states.

The initiation of medical benefit under compulsory health insurance in European States has revealed a large amount of sickness previously uncared for, because medical attention was a luxury which many could ill afford.

Already bills have been introduced in the legislatures of three states, the enactment of which will bring compulsory health insurance to these states.

In the tentative draft, medical and surgical requirements have not been definitely formulated as it seemed advisable that the medical profession should have a voice in determining under what conditions and regulations they are to serve under the act. In the administration of any scheme of health insurance, the medical profession is an indispensable factor. It should therefore have a voice not only in the construction of these measures, but should have representation on the various controlling bodies whose duty it is to administer the law and arbitrate under it. The necessity of medical representation is obvious to all who have had occasion to appear before our Industrial Commission.

If compulsory health insurance is to come to our State, as it seems destined to, our first task will be so to provide for medical service as to avoid lowering it to the despicable plane of competitive lodge practice. Adequate and high grade medical service to the insured can only be obtained if the capitation plan of remuneration is scrupulously avoided.

It is our duty to study carefully this important and rapidly developing problem, and through a hearty co-operation with our legislators, seek to obviate the difficulties, shortcomings, and bitter antagonism which marred its introduction in foreign countries.

With the advent of Preventive Medicine, workmen's compensation, health and maternity insurance, a new social relation between the medical profession and the public is rapidly being instituted. The members of the medical profession must be conscious of their social function to the degree that they will so organize and group themselves, either privately or in hospitals or dispensaries, as to afford under the new system that high grade service which has been heretofore denied that large industrial middle class which will be affected by the provisions of social insurance. It is apparent that under our present system only the very rich and the very poor are receiving the highest grade of medical service.

Preventive Medicine is here, and co-operative medicine is rapidly coming, and the future of medicine lies in these directions. Preventive Medicine is broadening its scope so as to include not only the prevention of infant mortality, the prevention of infectious and communicable diseases, but also industrial diseases and accidents, and the degenerative diseases.

We should realize at all times that we are public servants, and that our first duty is the protection of the public against disease, and that the respect which the public owes us, and should accord us is in direct ratio to the interest we take, and the efforts we make in behalf of their physical welfare. And if disease comes despite preventive measures, our next duty is to meet it equipped to bring into service all modern scientific clinical and laboratory aids to diagnosis and treatment, possible only under a system of co-operative medicine.

BENEVOLENT FUND.

Our State Society has done much for its members in the past and is striving to do more in the future. Would it not be wise policy for this great organization to establish a benevolent fund for the support and decent maintenance of those of its members who through infirmities of age, illness, or the misfortunes of finance face the brink of want or public charity? In this age of inclination towards benevolence and charity this surely should lie within the sphere of the many splendid activities of our Society. Illness and suffering are doubly distracting to those whose lives have been devoted to relieving them in others, and there can be no nobler function of the Society than the relief of destitution among its unfortunate members. Let us take care of our old friends in the Society, for in the words of Oliver Wendell Holmes:

"There is no friend like an old friend,
Who has shared our morning days.
No greeting like his welcome,
No homage like his praise.
Fame is the scentless sunflower
With gaudy crown of gold;

But friendship is the breathing rose
With sweets in every fold."

In conclusion permit me to make a plea for the highest type of citizenship and morality for the medical fraternity. Nothing is more distressing to the profession than the, alas, too frequent appearance of the names of colleagues in connection with the report of scandal and crime in the columns of the public press. Medical men on the whole are probably not below average citizenship in the scale of morality. Yet their morals should be above those of the average.

Ordinary business ethics and morals do not suffice when applied to the medical profession; their ethics and morals must be of a higher, purer type. May our profession forever be guided by the words in the Hippocratic Oath, "With purity and holiness I will pass my life and practice my art."

SYMPTOMS AND DIAGNOSIS OF ACCESSORY SINUS DISEASES.

BY ALFRED G. KREUTZER, M. D.,

MILWAUKEE.

Diagnosis. The diagnosis of accessory sinus disease belongs today to one of the most difficult problems of the Rhinologist, the subjective symptoms of lateral sinus disease being of such varied and inconstant nature, that we can but rarely depend upon them alone in establishing a diagnosis. A thorough knowledge of the anatomy of the lateral walls of the nose and the relation of sinus openings into the nasal fossa becomes absolutely indispensable in the diagnosis and subsequent treatment of these affections. We must gather to our aid in diagnosis all possible adjuncts in which the history of the patient, subjective complaints, transillumination and the X-ray plans no minor part.

Now how are we to proceed in establishing a diagnosis of one or more of the lateral sinus affections?

Let us imagine a patient coming to our office with the typical complaint of having for some time past, a large amount of thick muco-purulent discharge coming from one side of the nose. (Now to begin with a one-sided nasal discharge or suppuration is suspicious of lateral sinus empyema, as experience shows the great majority of cases originate from this source.) But a suspicion without further examination, however, is all we are justified in, for there are a number of exceptions in which a one-sided suppuration can exist without there being sinus involvement. For example, a foreign body in one side of the nose, or a syphilitic sequestrum may be the cause of a one-sided suppuration. We examine with a speculum the side of the nose from which the pus comes, and usually find the mucous membrane and floor of the nose covered with secretion, making further examination to show where the pus originates, impossible. The next step consists in getting rid of the secretion either with a douche or wiping away with a cotton swab, and shrinking the mucous membrane with adrenalin and cocaine, and again note from which point the pus reappears.

To trace this secretion to its source becomes now the object of our examination and a knowledge of the anatomy and topography of the lateral wall of the nose, as before stated, becomes imperative.

Now that our suspicion of the existence of an accessory sinus disease has been justified by the frequent and repeated presence of pus, the question arises from what sinus or sinuses is this discharge coming. If the pus appears in the middle meatus in front and under the anterior end of the middle turbinate, or if present posteriorly in the meshes passing backward over the L. T. B., we can only be dealing with frontal sinus, anterior ethmoidal cells, or antrum affections. If on the other hand the pus appears in the form of a streak in the fissura olfactoria, or in the choana above the middle turbinate, we are dealing with an affection of the sphenoidal sinus or posterior ethmoidal cells or both. To establish a diagnosis of a sinus infection and especially where more than one sinus is involved, requires much time and patience. Often many examinations and sittings are required and sometimes weeks pass before a diagnosis is definitely arrived at.

In the symptomatology of accessory sinus disease, there are a group of symptoms and manifestations common to all sinus affections, manifesting themselves in proportion to the severity of the disease. Among the most constant of which is headaches, headache varying from that of acute severe localized pain of a neuralgic character in acute sinusitis, to the dull, vague, diffuse, non-localized depressive and intermittent headaches of chronic inflammation. Secretion and discharge, too, is a constant conspicuous symptom, varying from a mucous, muco-purulent to an often foetid secretion,

the amount and character fluctuating, according to the severity of the inflammation, being as a rule most abundant in the acute stage of the inflammation or in the acute exacerbation of chronic empyema. Another symptom common to lateral sinus infection is the diminished or lost sense of smell, due to inflammatory changes of the olfactory membrane caused by the irritation of pus from the sinuses to the membrane of the nasal fossa.

Maxillary Sinus. A patient presents himself for examination and empyema of maxillary sinus is suspected. There is but one method which will give definite information: the exploratory needle puncture. If pus appears either by aspiration or lavage, one is absolutely certain the antrum contained purulent secretion, whether the sinus itself secreted the product, or whether it acted in the capacity of a reservoir for material which has been in one or more of the overlying sinuses is a matter to be determined. A certain proportion of cases, 20 to 30%, take their origin from caries of a tooth, this fact can almost always be elicited by the history and by visual and tactile examinations. Other adjuncts in the diagnosis being X-ray and transillumination. A feeling of tension and pressure are the symptoms in the first stage of the acute form. Pain and tenderness on pressure, may be present or absent over the sinus and often local hyperemia be present, depending largely upon the degree of inflammation. It may assume the character of neuralgia. Pain is particularly noticeable when stagnation of secretion with pressure occur.

The headache, whatever its character, may be intensified by stooping, coughing, and sneezing. Alcohol and tobacco increase the discomfort.

Secretions. The secretion in acute maxillary sinusitis is not formed at its inception, but makes its appearance after the first day or two. Its profuseness depends largely upon the causative factor, thus empyemas of infectious origin do not secrete as freely as a rule as those of a dental origin. The character of the secretion may range from serous to purulent and even sanguino-purulent.

The pus from acute sinusitis of dental origin is often more foetid and contains caseous matter. The place of appearance is usually in the middle meatus over the uncinate process beneath the middle turbinate.

Nasal Symptoms. The nose of the affected side is in a continued state of hyperemia with more or less occlusion. The nasal mucous membrane is hypertrophied. The sense of smell is obliterated or entirely destroyed.

Chronic Empyema. In chronic empyema the symptomatology has a peculiarly wide range of degree. The symptoms can be so slight as even to fail entirely, the patient being unconscious of sinus trouble until accidentally discovered. On the other hand the transmission from the acute to the chronic stage may take place without perceptible abatement in the subjective symptoms. In some cases the pain is similar to attacks of neuralgia occurring at intervals, and is characterized by its indefinite localization.

Frontal Sinus. The most prominent diagnostic symptom of frontal sinus inflammation is pain in the supra- and infra-orbital region. The pain is not of a neuralgic character, but is rather more indefinite and embraces more or less the entire frontal region with culminating points in and around the sinus. There is always a history of an acute cold which rhinoscopic examination will substantiate by the character of the secretion which is exuding from beneath the middle turbinate. Tenderness on pressure and percussion particularly at the junction of the inferior and lateral walls, is an almost pathognomic symptom. Hyperemia of the middle nasal passage with more or less swelling as a constant symptom with partial or complete occlusion of the meatus. General disturbances are present in direct ratio to the severity of the disease. Pain and headache are the most prominent symptoms of frontal sinusitis. They are present from the very inception of the disease and continue with greater or less severity until resolution has set in thoroughly or until the affection has become chronic. The seat of the pain is primarily situated in the region of the affected sinus, and later radiates over the area supplied by the supra-orbital tract of the trigominus. No matter what intensity the pain assumes, it is invariably augmented by any condition which tends to cause congestion of the head.

Ethmoidal Disease. It is difficult to enumerate the precise symptomatology of acute and chronic purulent ethmoiditis for the reason that the disease is rarely met with dissociated from other conditions. In general, it may be compared to a particularly severe cold in the head. Absolute occlusion of the nose is present particularly in the superior portion between the eyes. Headache is of course one of the most constant and severe symp-

toms, taking on a tense character with occasional neuralgic outshots towards the deeper structure of the eye. Ocular symptoms are prominent, as tenderness of the bulb, pain on rotating, epiphora, orbital neuralgia on reading, or otherwise concentrating the gaze. Anosmia is marked as long as the nasal obstruction exists. Pharyngeal and bronchial symptoms met with are often associated with ethmoidal disease. By far the most common bronchial affection occurring with hyperplastic ethmoiditis is asthma. How this may have a bearing upon the ethmoidal disease is well shown by the numerous cases reported cured after removal of the diseased ethmoidal structure. Bronchitis in various degrees also accompanies this disease, and some writer claimed it occurs in 30 per cent. of all cases.

Sphenoidal Suppuration. Perhaps no other sinus presents such a wide deviation in the subjective and objective symptoms as the chronically diseased sphenoid. A chronic empyema of this cavity frequently exists without especial manifestations which would direct the attention of either the patient or the examining physician to this portion of the cranium. On the other hand sufferers from this disease have been so seriously affected as to seek relief from their misery with such extremes as suicide. These subjective symptoms being largely dependent upon the drainage of the sinus. Those cases with free drainage occupy not an inconsiderable proportion of those diagnosed in our dispensaries as Rhinitis sicca, chronic pharyngitis, post nasal catarrh, etc. In cases of intermittent and insufficient drainage both the subjective and objective symptoms are conspicuous.

Headache is one of the most prominent, at the same time one of the most unreliable symptoms connected with the disease. Its presence depends upon the pressure of the secretion or of the swollen mucosa within the cavity. As the internal sinus pressure, except in the extreme instances, is not constant, it naturally follows that the headache must occur in periodical attacks. This attack occurs as a rule daily and lasts a varying length of time, from one to several hours. When remissions do occur, it is incomplete as a dull indefinable ache and continues until the next paroxysm.

The exact location of the head pains is impossible to determine as it varies with different degrees of inflammation, and is not localized to any definite spot. Generally speaking it begins on the vertex and radiates downward to the temple and sometimes into the mastoid region. Again it may center in the occipital region extending into the muscles of the nape of the neck. The deep seated pain is located behind the eyeballs and when severe even enters this structure. Indulgence in alcohol and tobacco, constipation, or any slight irregularity which would tend to cerebal congestion exercises a marked influence in the severity of the pain. Dizziness and vertigo are often present.

Mental Symptoms. Due to the close proximity of the brain, certain cerebal manifestations appear, inability to concentrate the mind with extreme aversion to mental work. As the disease progresses the manifestations become more and more marked. A post nasal discharge can always be elicited from the patient and this symptom is one of the patient's chief complaints. Bronchial and gastric disturbances are concomitant with the affection.

Ocular symptoms are frequently conspicuous manifestations.

Diagnosis. In conjunction with the history and subjective symptoms the diagnosis must now be further established by a thorough Rhinoscopic and X-ray examination of the patient.

Of all of the asinine measures that have been introduced in Congress that which originates in the fertile Christian Science brain of Senator Works of California "takes the cake." He would prevent any and all medical officers connected in any way with the Government Service from becoming members of any medical society, and, if already members of such societies, he would force them to resign. The next step in order would be to compel all medical men connected in any way with Federal Service to cancel subscriptions for any and all medical journals or medical books, and to solemnly swear that they will not accept gratuitously, or even read medical journals or medical books. As a final requirement, Senator Works should ask Federal Employes to agree to carry close to their bosoms a hand-tooled and gilt-edge volume of Mrs. Eddy's "Science and Health and Key to the Scriptures," and agree to make its teachings a guide for all action. The trouble with Senator Works is that aside from being puffed up with an exaggerated idea of his own importance, he is wonderfully shy of that kind of gray matter which tends to give a man the faintest semblance of common sense. It has been said that the majority of Christian Scientists are not very well balanced mentally, and Senator Works seems to be more than living up to the reputation of the deluded sect to which he belongs. If he does not watch out, one of these fine days a commission on lunacy may be called upon to pass judgment as to whether he shall not be placed in confinement where his vagaries will do no harm.—*Jour, Ind. State, Med, Assoc.*, June, 1916.

GENERAL CONSIDERATIONS IN THE TREATMENT OF FRACTURES.

BY H. REINEKING, M. D.,

MILWAUKEE.

A discussion on the treatment of fractures affords, at the present time, little or no opportunity for offering anything new or not already the common possession of the profession, especially when, as in the present case, it is limited to general considerations.

The essential requirements of treatment, namely, early adjustment of the fragments to the most perfect degree obtainable under existing circumstances, retention by such supports as shall seem best suited to the conditions present, care and protection of the soft structures, treatment of complicating injuries, and suitable aftertreatment until function shall have been restored as far as such restoration is possible—these requirements have been recognized since the beginning of the healing art and can never be lost sight of without danger of detrimental results.

In the attempt to carry out the first requirement, the reduction or adjustment of the fragments, many and sometimes almost insuperable difficulties are often encountered. Other things being equal, I believe that the earlier a fracture is reduced the easier will be the task and the better the condition of the structures concerned; there is less swelling, less displacement by muscular action, less interlocking of projecting fragments with soft structures, less interposition of surrounding tissues between the fractured ends, and less prolonged injury to nerves and blood vessels by displaced fragments, than will be the case after a delay of one or more hours, especially if the patient has to be transported without adequate temporary supports. My experience leads me to believe that if we could render first aid in our fracture cases within half an hour or an hour after the accident, a large share of our present difficulties would be avoided.

The actual conditions, as met with in practice, are as a rule such, however, that immediate or very prompt reduction is not practicable on account of the remoteness of the place of accident from the surgeon or the hospital. Not rarely, too, the condition of the soft parts is such as to forbid the immediate application of ordinary retentive apparatus though with the exercise of a little ingenuity, sufficient support to hold the fragments in fairly good alignment can usually be improvised.

The discovery of general anesthesia added greatly to the possibilities of overcoming displacement, by rendering the manipulations painless and relaxing the resisting muscles. Still the surgeon was left more or less in the dark as to the exact result of his efforts. Then came the discovery of the X-ray and its application in examinations of the human body, more especially the bony system. This laid open to view the frequent shortcomings of the ordinary methods of reduction and retention in difficult cases, and led to the development of methods for better adjustment and fixation by open operation in cases where satisfactory apposition could not be effected and maintained by manipulation and external supports alone.

These three important aids, then, anesthesia, X-ray and open operation, are at the command of the surgeon when he meets the difficulties above alluded to. Anesthesia and X-ray examination should be the rule in all fracture cases. The propriety of open treatment in the class of cases just mentioned is no longer debatable; differences of opinion as to detail of technique, or as to material used for fixation, are comparatively unimportant; the possibility of infection, or of the necessity of subsequent removal of the medium of fixation, has no place in coming to a decision for or against the procedure in a given case.

Leaving out of consideration cases that are handicapped by disease, old age, chronic alcoholism and other disabling conditions not under our control, it would seem that with the skillful, diligent and persevering use of these agencies, practically no fractures of long bones and only such of other bones as are not accessible or amenable to direct attack, need at the present time result in disabling or unsightly deformity. In order not to be misunderstood, I will add that this statement does not refer to disability resulting from injuries to joints or to complicating conditions of other soft structures.

Notwithstanding these advances and the possibility of their application by practically every practitioner, we are not infrequently brought face to face with badly united fractures which have never had the benefit of an attempt at reduction under anesthesia, or been subjected to the scrutiny of the X-ray. Even in isolated rural districts anesthesia is available, though X-ray facilities may not

be within convenient reach. But what shall we say of the city practitioner who allows his case to go on to a disastrous termination in the manner mentioned?

He belongs to the contingent who never come within hearing of the Medical Society essayist, and seem to shun the acquaintance of the modern text-book or periodical. There may be some hope for him if perchance he should some day experience a rough awakening by the threat of a malpractice action.

In this connection it occurs to me that up to the present time the courts have generally observed a lenient and conservative attitude toward the physician in actions for malpractice arising from unsatisfactory results in fracture cases. This attitude seems to me to have been carried forward from the time when accurate diagnosis and precise adjustment were impossible. It is altogether probable, however, that with the dissemination of knowledge concerning modern methods, our results will be judged, and we will be held accountable, not according to the standards of past centuries, but of the period in which we live.

In regard to external retentive appliances, it may be said that those who have trained themselves in the various methods of the use of plaster of Paris, will, in fractures of the extremities, rarely use or require any other material. The longitudinal application of plaster bandages, known, I believe, as Stimson's plastic splint, deserves far more general adoption by the profession than is now the case. Especially should it replace the Dupuytren board splint in cases of Pott's fracture. In fractures of the forearm it should be used in preference to the circular cast on account of the tendency to approximation between radius and ulna which is difficult to control when the circular cast is used. Another device that deserves to be more generally used is the spanning or bridging over of extensive injury of the soft parts by means of iron bars imbedded proximal and distal to the fracture in an extensive plaster cast. I do not wish to be understood as underrating the value of extension by means of weight and pulley in certain cases; on the contrary, I consider it a valuable and indispensible part of our armamentarium, especially in joint injuries accompanied by infection.

In connection with injury to the soft parts, especially to large blood vessels and important nerve trunks, early recognition is of the utmost importance, both for the welfare of the patient and the protection of his physician. These conditions must be sought for. As a rule, the patient does not recognize or complain of the symptoms indicating their existence. If discovered subsequent to the application of retentive splints they are likely to be attributed by the patient to pressure of the splints, or other improper management. Nerve trunks, if pressed upon or divided, should be released or sutured at the earliest opportune time. Suture or anastomosis of lacerated or thrombotic blood vessels will vary rarely, if ever, be practicable, as such injuries are usually produced by direct crushing violence, and the areas of injury of the soft parts too wide to admit of such repair.

The most puzzling question in connection with the after-treatment of fractures is that of the proper time for beginning passive motion and allowing active use of the broken part. On this question authorities differ widely, especially when it comes to joint fractures. The weight of authority, so far as numbers are concerned, is undoubtedly in favor of early passive motion. The conviction has forced itself upon me, however, that the ultimate mobility of a fractured joint is determined more by the extent of injury incurred by the joint structures and by the accuracy of the reposition and fixation of the fragments than by our efforts of re-establishing motion. In other words, if the fragments unite so as not to interfere with the function of the joint, and if the injury of the soft parts is not such as to lead to extensive thickening or contractions of the capsule, the result will probably be good independent of the time when motion is begun. If, on the other hand, bony deformity or excessive callous results, a too early or active interference on our part would be certain to aggravate the condition.

In elbow fractures I have as a rule followed the orthodox teaching and instituted passive motion and massage after the third to sixth week, and must confess that the final results in the majority of cases have not come up to my expectation. On the other hand, in my early practice, when I was not in position to give my cases very much attention in the way of after-treatment the results were almost invariably satisfactory. I quote, with approval, the following paragraphs from A. P. C.

Ashhurst's admirable treatise on fractures of the lower end of the humerus (p. 92):

"Long continued immobilization of a normal joint has been proved, experimentally and clinically, not to be productive of ankylosis. If, therefore, the surgeon is confident that he has reduced a fracture of the lower end of the humerus, a fact which can be proved by the use of the X-rays, there is no reason why he should torture his patients by enforcing passive motion. As a resident physician in the hospitals, some of my chiefs 'believed in the use of early passive motion' for fractures around the elbow; and many is the elbow on which at their instigation I have enforced violent passive movement with the idea of preventing or of breaking up adhesions, destroying or wearing away exuberant callus, etc. The children kicked, screamed, and yelled; their parents, the orderly, and the nurse held them still, while I gave them excruciating pain, and unwittingly aroused more osteogenetic and inflammatory processes around the elbow than were present before; and I never saw an elbow fracture which did not stiffen up under this treatment. Fractures around the elbow I regarded as hopeless; I anticipated a stiff joint, deformity, or at least a considerable limitation of motion in practically every case, and I rarely failed to find it.

Since then my eyes have been opened, and I am convinced of the truth of Stimpson's epigrammatic statement: 'If you leave the arm alone, you save your time and the patient's time, and he gets well quite as promptly'."

Do not understand me as denying or underrating the value of mechanotherapy when applied after firm union has been established and acute sensitiveness has largely disappeared. In the matter of after-treatment the element of time is always an important one. Some cases attain a good anatomical and functional recovery in a surprisingly short period, while in others the period of disability if often distressingly prolonged notwithstanding the apparently good union. In the latter cases we should bear in mind that while the bone injury discernible by the X-ray may have been recovered from in an ordinary length of time, the restoration of the soft parts, especially of the muscular system, may require a much longer period.

Finally, we should bear in mind, that in the matter of after-treatment, whatever else is done or not done, the active exercise on the part of the patient, at the proper time, that is, after firm union has taken place, is the one essential requirement for the restoration of normal function.

PORK AND TRICHINAE.

THE NEED FOR THE THOROUGH COOKING OF FRESH PORK BEFORE IT IS EATEN.

According to results of microscopic examination by the United States Department of Agriculture, more than 14 out of every 1,000 hogs slaughtered in this country contain the parasite known as *Trichinella spiralis*, and more than 25 out of every 1,000 of the hogs contain either this worm or bodies resembling the cysts of this worm.

If taken alive into the human body, this parasite, known ordinarily as trichina, is capable of producing a disease known as trichinosis, and statistics of 14,820 cases in man show that 5.6 per cent. were fatal. But if the worms are killed by thoroughly cooking the pork they will not produce this disease. Hence, if the meat is thoroughly cooked the consumer need have no fear of contracting trichinosis.

The meat inspection conducted under the Federal laws, and under the regulations promulgated by the United States Department of Agriculture, does not include an inspection for the presence of trichinæ in hogs, as it can not be determined with certainty by any known method of inspection whether pork is free from these parasites.

Experience shows that the microscopic inspection for trichina conducted in some countries is weakened by such an incidence of error and uncertainty that it is untrustworthy, and that it eliminates from the trade only part of the trichinous meat. On account of the uncertainty and untrustworthiness of this microscopic inspection neither meat-inspection systems nor meat dealers are in a position to give scientific assurance that pork, even if inspected microscopically, does not contain this infection. Hence, the public is warned that in spite of any assurance to the contrary given by any person, it is not safe to eat even microscopically inspected pork unless this is thoroughly cooked or unless it is treated by some other safeguarding process that kills the trichinæ.

Pork, despite the presence of trichinæ, if otherwise sound, is rendered fit for food if properly and thoroughly cooked; but no pork or pork product of any kind is fit for human consumption unless it is first prepared so as to destroy any trichinæ which may be present. Trichinæ may be destroyed by exposure to a freezing temperature not higher than 5° F. for 20 days, or by certain special curing processes; but as these methods are not generally applicable, thorough cooking is the only means that is available to the consumer under usual conditions of rendering fresh or cured pork safe for food.—*Public Health Reports*, July 7.

INFANTILE PARALYSIS—ITS MANAGEMENT FROM THE STANDPOINT OF THE ORTHOPEDIST.*

BY F. J. GAENSLEN, M. D.,

MILWAUKEE.

Infantile paralysis has never received as much attention in this country as it has during the past few months, due to the severe outbreak in New York. Personally, I see very little of the acute cases, and indeed we have scarcely had more than the usual number of cases in this vicinity. I do, however, see a considerable number of cases in the paralytic stage and it is the care and treatment of the cases in this stage, that I wish to speak of in particular. For the sake of completeness, however, I may be permitted to digress from this feature, to go over the known ground, regarding the nature and transmission of the disease. So much has been written recently on this phase of the subject, notably by Flexner, that I will devote only a few minutes to this portion.

The following notes are taken from Flexner's recent writings. As to the nature of the disease he says: "Infantile paralysis is an infectious and communicable disease which is caused by the invasion of the brain and spinal cord of a minute filterable micro-organism, which has now been secured in artificial culture and as such is distinctly visible under the higher powers of the microscope."

The virus exists constantly in the central nervous organs, on the mucous membranes of the nose and throat and the intestines in persons suffering from the disease. The virus is very resistant and is readily distributed by sneezing, coughing and kissing. The virus enters the body by way of the mucous membrane of the nose and throat. It reaches the brain and spinal cord by way of the lymphatics, connecting the upper nasal mucous membranes and the interior of the skull.

Probably the period at which the danger of communication is the greatest is during the early and acute stages. The period of incubation averages about six or eight days. The virus probably may remain in the mucous membranes a long time after the signs of acute disease have disappeared. In the human it has been demonstrated five months after the onset of acute symptoms. As a rule, however, cases which have been kept under supervision for a period of six weeks from the onset of symptoms may be regarded as practically free from danger. The mucous membranes of the nose and throat of healthy persons may harbor the disease germs and transmit it to healthy persons. The ordinary bacteriological methods are unavailing in the detection of the organism. The virus *can* be detected by inoculation tests on monkeys.

Hexamethyleneamin is the only drug which is known to exert a favorable influence on the disease, and this is effective only in some of the very early cases. Deductions from the standpoint of public health protection are self-evident.

The following notes bearing on the serum treatment are of much interest. Flexner and Lewis in 1910 demonstrated that monkeys who had recovered from poliomyelitis induced experimentally possessed an acquired immunity against subsequent infection. It was further determined that the blood serum of monkeys actively immunized would neutralize the active virus in the test tube, and, what is more important, that the serum from actively immunized monkeys and humans could protect monkeys against the usual fatal dose of the virus. Serum therapy in man is still only imperfectly developed at present. Netter in 1915 published rather favorable results in 35 cases treated by injection of serum from persons who had recovered from the disease long since. The serum injections, 5-20 cubic centimeters, are made by means of lumbar puncture, after withdrawing an equal amount of spinal fluid. This dose is repeated several times at intervals of 24 hours.

The first epidemic in the United States occurred in 1907, the disease being imported from the Scandinavian peninsula. The eastern ports, Boston and New York, received the brunt of the infection, while smaller epidemics occurred in Minnesota and the Dakotas, the disease following the immigrants to these localities.

The pathology consists essentially in a round cell infiltration about the vessels of the meninges of the brain and spinal cord resulting in a choking of the vessels and starvation of the nerve elements. The varying intensity of these processes coincides with the great variation in the resulting paralysis. In some there is but a transient anemia and in these there is merely a fleeting paralysis. These cases would constitute the mild or abortive type.

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*Read before the Milwaukee Medical Society, Sept. 8, 1916.

In others there is extensive cell death with permanent and extensive paralysis. During an epidemic one should be on the alert in all cases of even slight indisposition in children for evidence of muscle tenderness, girdle pains, limitation of motion in the neck and the presence of Kernig's sign.

I know of no practical method of establishing a diagnosis previous to the onset of paralysis, and it is well therefore in suspected cases to isolate the patient immediately and to exercise careful supervision over members of the family exposed. Lovett, of Boston, favors the administration of urotropin in large doses to exposed children. Gargles and nasal washes may also be of benefit.

Besides the usual rest, cartharsis, and regulation of diet, Lange of Munich for some time has insisted on absolute immobilization of the spine by placing the child on a plaster bed or half shell. The same end may be attained with less disturbance, by placing the patient on a Bradford frame or by moulding a sheet of stiff poroplastic felt to fit the trunk. Lange believes that the process may remain more localized by this means, while much handling of the patient will tend to an extension of the process by mechanical distribution of the virus and by the increased lymph flow associated with movements of the spine.

The next most important feature demanding attention is the tendency to contracture of muscles and the consequent deformity. It takes but a very short time for the development of a contracture deformity in this condition and the fact that the great majority of cases ultimately develop these deformities shows that neglect of this rule is very frequent. This cannot always be laid at the door of the physician. Quite as often it is because of lack of co-operation on the part of the parents.

During the convalescent stage, massage, electricity and especially muscle training are of value. Lovett has found the spring balance a great help in determining the presence and degree of improvement following exercises. A word of caution is necessary here, not to allow massage until all trace of muscle tenderness has disappeared. Electricity is also frequently applied too early. As Lovett says, the greatest difficulty in the convalescent stage is the management of the parents who are clamoring for electrical batteries, from which they expect wonderful results. During the paralytic stage apparatus is necessary for support to prevent faulty weight bearing, produced by buckling backward or forward of the knees, or by turning of the ankles.

The management of the stationary or paralytic stage, is the one in which I am most interested. In the great majority of cases, certain muscles only, or certain groups of muscles are paralyzed. This destroys the muscular balance about a joint and unless very careful supervision is maintained for a long time, deformity is bound to result. In the leg, for instance, there are four muscle groups, the dorsal flexors, drawing the ankle upward, the plantar flexors drawing the ankle downward, the supinators and the pronators. These muscles normally are in a state of balance. In case of weakness of one of the groups, let us say of the dorsal flexors, the strong calf muscles will cause permanent distortion or contracture of the foot in the equinus position. The result is that the dorsal flexors are under constant disadvantage by being overstretched, and once the contracture is developed even though the nerve elements have recovered, the muscles will not recover because of this continual overstretching. It may be put down as an axiom that muscles partially paralyzed cannot recover to the greatest possible degree until they are relieved of the overstretching no matter how much time and attention may be devoted to them in the way of massage, electricity, etc. I should like this paper to be regarded as a plea for the careful study of these cases so that the distressing disabilities may be diminished to the greatest possible extent. I see cases dragged to the free Dispensaries by visiting nurses almost against the will of the parents, who have been told perhaps by several members of the profession that nothing can be done. They have tried massage of the deformed foot, have tried electricity, have tried corrective shoeing and braces, too often under conditions which precluded the possibility of improvement.

To refer to the previous illustration: The first indication then would be to relieve the anterior leg muscles from the inordinate pull of the calf muscles, to splint the foot to prevent recurrence of the toe drop by a suitable brace, to prevent the weight of the bed clothes at night from undoing your efforts, and then, having established the best conditions for recovery of lost function, to institute massage and muscle training, etc., when results will be more encouraging.

I wish now to refer very briefly to some of the

surgical procedures which are useful in restoring stability and function in some of these paralytic cases. One of the oldest and much used is that of tendon transplantation. By this method we do not add power to the sum total of power but simply re-distribute that which is left. If we have several strong pronators and no supinators one of the former can be transplanted to restore the balance of power. The less important function must be sacrificed to restore a more important one. A strong muscle producing deformity because of lack of an antagonist can be re-implanted in a more favorable position. Careful judgment in selection of cases and careful technique to prevent adhesions of tendons in the new paths are very essential.

Whitman has shown that in some cases where there is complete paralysis of all the muscles of the leg with a dangle foot resulting and an absolute lack of stability, the latter may be restored in a surprisingly large measure by removing the astragalus. The foot will come to lie flat on the ground with just enough flexibility to accommodate itself to slight unevenness of the ground.

In certain other instances where there is marked toe drop, the difficulty may be overcome by insertion of silk ligaments. In these the patients, if able to walk at all, acquire a peculiar gait in that the foot must be swung in a circle in order that the toes may clear the ground. By inserting several very heavy silk strands passed through drill holes into the meta-tarsal bones, passing the strands up under the annular ligament and passing them through a drill hole in the tibia, the foot may be held securely in a right angle position thereby improving the gait very materially. In still other instances, the tendons of hopelessly paralyzed muscles may be used as ligaments by passing them through grooves under the periosteum. This is a contribution of Dr. Gallie of Toronto.

Occasionally an arthrodesis or artificial stiffening of a joint may be called for. This consists in the removal of all of the articular cartilage in the joint and fixation until the raw bone surfaces have firmly united. In this way a foot with excessive mobility is replaced by a stable foot. The operations of nerve grafting are still in the experimental stage and have not come into more extensive use.

Now I do not wish to give the impression that all cases need surgical treatment. The great majority do not, but some need it very badly and it requires careful study to determine upon the proper procedures.

Unless the operator is willing to supervise the after-treatment for a sufficiently long period, as this is every bit as important as the operation itself, and unless the parents will do their share toward providing the proper and necessary attention, there will be very little pleasure in viewing the end results.

STUDIES OF BICHLORID POISONING.

The necessity of prolonged and vigorous treatment of every case of bichlorid poisoning is strongly emphasized by Lewis and Rivers (Bull. Johns Hopkins Hosp., July, 1916). Many apparently moribund individuals have been saved by properly directed and vigorously pushed therapeutic measures. Death should be the only indication for a discontinuance of treatment prior to the complete recovery of the patient. Retention of waste nitrogen is undoubtedly a factor in the early fatal issue of these cases. There are rarely any signs of uremia. The protein sparing powers of the carbohydrates are of the greatest value in delaying the appearance of the extreme grades of nitrogen retention which usually precede death. If carbohydrate cannot be retained by mouth, glucose may be given intravenously in a 10 to 50 per cent. solution. In addition to its protein sparing action, the glucose itself acts as a mild diuretic. Alkalics have a decidedly beneficial action. Large doses of sodium bicarbonate given intravenously soon after the taking of the poison exert a protective action in bichlorid poisoning. The diuretic action of the alkalies is well known.—Jour. A. M. A., July 22, 1916.

The reason and whyfor of our present plan of medical organization no longer requires discussion or debate. Its existence is justified; its objects are wholly meritorious. This is now universally conceded. What concerns us most is how we may individually and collectively secure the greatest good from our organization and how we may cause it to yield unto all the fullest amount of intellectual and social dividends.

It must become recognized that the energy contributed to and revealed in the county society is the avenue from which our dividends must be expected. The County Society is charged with this responsibility and the degree in which it assumes this charge will determine its status in the circle of organization.

The responsibility is a trust that rests upon the individual member of each county unit. It is they who in the final analysis determine their ability to receive this trust and to reveal their worthiness or unworthiness of this confidence by causing their county society to become an active, thriving organization or one just the contrary. Your individual loyalty to your society is revealed in the energy you personally expend in its service. It is yours if you choose to reap large dividends of extreme value or none at all.—*Michigan State Med. Journal.*

BLOOD-SUGAR.*

BY J. P. CANAVAN, M. D.,

AND

A. W. DAHLSTROM, M. D.

Sugar is a physiological constituent of the blood. It, or at least some reducing substance, was first discovered by Dobson, 1775, in the blood of a diabetic. Claude Bernard some seventy years later found a like substance in normal blood. He found that it was markedly increased following puncture of the floor of the 4th ventricle, his "piqure." For years the work on blood sugar was advanced research work, and until recently this phase of blood work attracted but little attention from the profession. However, with the advances of physiological chemistry, and the improved, simplified technique of modern tests much work has been and more is being done in all directions on the sugar content of the blood. The various editorial comments in the Journal of the A. M. A. are a fair index as to the important events during the past four years.

In 1912[1] the editor commented on the advances made in the study of blood-sugar formation, the value of the blood as an index to sugar mobilization, and mentioned especially the work of Höber[2], who pointed out that the sugar content of the corpuscles was regulated by the corpuscle without regard to the sugar content of the plasma.

In 1913 there were three editorial articles[3, 7, 8]. The work was toward ascertaining the normal content and the physiological variations. The work of Rolly and Oppermann [4] was mentioned showing the normal content to be avg.: 0.096% for plasma, red blood cell slightly less. Welz[6] was the first to call attention to the necessity of regarding the influence of diet on the sugar curve. He also showed that the old ideas as to the slowness of starch digestion and absorption were erroneous.

In 1914[9] the work of Jacobsen[10] was commented upon. He found that the hyperglycemia following 100 grams of dextrose three hours after breakfast was similar to that produced by comparable quantities of starch, but that the onset was slower. Fat and protein diets had no effect on the blood sugar. Starch and fat mixed gave a milder hyperglycemia, which may be due to mechanical inhibitory action of fat or to the fact that fat retards food discharge from the stomach. Montigny[19] reported his findings for the normal content, and emphasized the need of a standard meal, and fixed interval or set time in relation to the standard meal because of the diet and time factors in the sugar curve. In this same year Epstein and Baehr[11] published some work showing that the total amount of blood sugar remained the same after hemorrhage, but that the percentage changed. They suggested some possible relation between this fact and renal diabetes.

In 1915[12] the work of Strauss and others[13] was given mention. More emphasis was given to the value of the diet curve, using the accurate modified Kowarsky method. Hirsch[14] advised taking blood before and after meals. He also reported a rise following anesthesia independent of diet, about .18% in 24 cases, with no glycosuria.

Recently[15] the Journal sounded a warning note to the too enthusiastic worker by citing the work of Mann and Drips[16] which tended to upset the view of the functional, antagonistic or supplemental action of the adrenals and pancreas. They explain all the changes in the pancreas, following removal of the adrenals, by vasomotor changes, decreased blood pressure, lowered temperature, and that the changes are not beyond what are seen elsewhere in the organism.

Von Mering, about 1877, and others in that same period found the reducing substance to be dextrose. [17]Strauss in 1902 found levulose. Other reducing substances have been reported, but are either not definitely established or may be disregarded, such as: jecorin (lecithin sugar), isomaltose, pentose, virtual sugar, etc. The possible forms of sugar which may be present in the blood are:

Free solution—actual sugar.
Loosely combined—acts as actual sugar.
Fixed—virtual sugar—does not enter into tests immediately.

Virtual sugar was found by Lepine and Boulard[17]. Rona and Michaelis established the presence of free sugar by the modified dialyzing process. There seems to be a suggestion that the lungs and CO_2 have some bearing on the conversion of virtual to actual sugar—but little can be found in the literature on this subject.

It is generally acknowledged that the excess sugar from digestion is synthesized into glycogen

*Work done as students under direction of Dr. Warfield, at Milwaukee County Hospital.

by liver and muscle cells. Bernard and others demonstrated that glycogen in a dead liver was changed to sugar by the action of a diastatic enzyme, and it is now generally accepted that sugar is formed from glycogen in life by the action of liver diastase. Kleiner[26] emphasizes the action on the part of the muscles in removing the excess of sugar from the blood, and again[40] he calls attention to the relation of pancreas and liver in taking care of sugar excesses. Biedl[24] says the metabolism of the carbohydrates lies wholly within the province of the sympathetic nervous system. That the nervous impulses acting in conjunction with hormones maintain the normal equilibrium. He states that the sugar content of the blood is dependent on the amount of sugar in the liver, and takes the view that the pancreatic secretion inhibits the formation of sugar in the liver. Adrenal secretion inhibits the activity of the pancreas. Thyroid secretion acts through the pancreas like the adrenals. He seems inclined to use the diagram of Eppinger, Falta and Rudinger:

Augmentatory:	Thyroid	Chromaffine system	Infundibular portion of hypophysis
Innervated by:	Sympathetic and autonomous	Sympathetic	Sympathetic
Inhibitory:	Pancreas		Parathyroids
Innervation:	Autonomous		Autonomous

McLean[39] gives van Noorden's idea that the sugar is stored in the liver, is liberated when called for by the tissues, and the mobilization of it is inhibited by the pancreas-thyroid combination and accelerated by the adrenals and nervous system.

The variations in the normal are reported as:

Temperature: Increased external heat raises sugar very much[5], Senator.

Diet: 100 grams sugar in tea on fasting stomach, rise one hour after eating, normal again in two hours[18], Bing and Jacobsen.

100 grams potato, or 200 grams bread, cause hyperglycemia sooner than would expect, digestion and absorption not so slow as formerly considered. Welz[6].

100 grams dextrose 3 hours after breakfast produced hyperglycemia; comparable quantities starch produced same results. Fat and protein alone cause no changes. Starch and fat produced a mild hyperglycemia. Jacobsen[10].

Lowest before meals, rise an hour after meals, .04 to .12%. Strauss, et al[13].

100 grams glucose, moderate rise to .14% ½ to 2 hours after ingestion, no constant level for glycosuria. Hopkins[20].

10 grams dextrose per mouth caused rise in blood sugar. 30 grams per rectum caused no such rise—all absorbed, does not attempt to explain why. Jahnson-Blahm[23].

Infants: .029 to .036%. Montigny[19].

Hemorrhage: Percentage up, total sugar unchanged. Epstein and Baehr[11].

Anesthesia: rise to .18 to .19% independent of diet. Hirsch[14].

Exercise: no influence in normal individuals[22].

Fear, Pain, Rage, cause hyperglycemia. Cannon et al[28].

Drugs: Adrenalin, small doses cause hyperglycemia. Biedl[24].

Caffeine, subcutaneous, 150 mgms. per kilo, rabbits, marked hyperglycemia, up to .45%. Kahn[31].

Zinc malate, glycosuria without hyperglycemia. Kahn[31].

Salt solution, 1%, glycosuria without hyperglycemia. Hammerstein.

Experiments: Bernard's puncture produces hypercemia.

Removal of adrenals causes hypoglycemia. Biedl[24].

Ligation of portal vein causes hyperglycemia, but with other ligations, he comes to conclusion that widest variation in blood supply can have but little role in the changes of blood-sugar. McGuigan[24].

Veins and arteries of kidney tied off, hyperglycemia 1 hour afterwards, more so when veins tied off first, and high content of blood may be reduced by injecting blood from renal vein of untreated animal. Itakura[27].

Excess of dextrose disappears from blood when injected into veins, about 90 minutes after injection. Same results in nephrectomized animals. Dextrose disappears rapidly when injected into veins of dead animals. Dextrose disappears rapidly when aorta and inferior vena cava are tied below the diaphragm. Increase in muscle sugar found in all cases. Most cases showed evidence of formation of polysaccharides in muscles. Kleiner[26].

The following variations were reported in the presence of definite pathological or other abnormal conditions:

Fever: increased blood sugar, decreased when fever subsided, but seemed to be no parallel between them. Hollinger[29].

Pneumonia: rise in blood sugar, not altered by leucocytosis, blood pressure, or kidney involvement. Hopkins[20].

Diabetes: up to .4% in bad cases, even 1.0% in coma. Oatmeal diet causes hyperglycemia, but raises threshold of kidneys. Rolly[7].

With 6% sugar in urine, had .2% sugar in blood. Montigny[19].

Carbohydrate-free diet brought down sugar level, depending on the severity of cases, complications, and when down to level for that case no further dietary restrictions would further reduce the level. Oatmeal days increased blood sugar. Coma was attended with marked hyperglycemia. Wolf and Gutman[33].

Pronounced alimentary hyperglycemia in diabetics, quick rise and prolonged. Hopkins[20].

When diabetic urine contained 2.7% sugar, blood showed .37%[21].

Found that sugar remained high even after urine was sugar free, and that kidney permeability higher than supposed. Wanatabe[34].

Case of coma with .66% blood sugar, no diacetic acid or beta-oxybutyric acid.

10 grams sugar per mouth caused rise in blood sugar. 30 grams sugar per rectum caused no such rise, though absorption was all right. No attempt to explain cause[23].

Hyperglycemia precedes glycosuria.

Renal diabetes: Glycosuria without increase in blood sugar, suggests some change in kidney cells.

Thinks conception of renal diabetes not justified clinically, and that lack of increased blood sugar does not justify making a disease entity. Reports case with little sugar in urine, no excess in blood, yet with 100 grams dextrose got a prolonged hyperglycemia, which is evidence against renal diabetes. Says only one case reported that can withstand severe criticism and there is some question about that reported by Gram. Bergmark[38].

Cancer: Pancreas, slight increase in blood sugar[18].

Some cases of cancer, late, severe, show hyperglycemia[20].

Blood pressure: No constant relation between them[18].

Polycythemia: associated with high blood-sugar[18].

Nephritis: Blood-sugar paralleled chloride retention in chronic nephritis[31].

Chronic contracted kidney showed hyperglycemia when (diabetic too) urine was sugar free[33].

High blood pressure nephritis had a moderate hyperglycemia, which was frequent with low phthalein excretion[20].

Acute parenchymatous nephritis, one case, had .11%.

Chronic interstitial nephritis, one case, had .21%[21].

Hyperthyroidism: 27 cases; common accompaniment was hyperglycemia, alimentary or spontaneous, or both. Slower return to normal after ingestion of carbohydrates. Thyroid extract in cases of myxedem brought on a hyperglycemia[36].

Thyro-parathyroidectomy: this resulted in hypoglycemia with tetany.

Calcium temporarily restored blood sugar, abolished tetany.

Dextrose temporarily restored blood sugar, had no effect on the tetany.

Progressive muscular dystrophy: hypoglycemia is present with low creatin, cholestrin, ammonia excretion, and the treatment which tended to increase sugar and cholestrin content of blood brought about improvement[37].

Eclampsia: 8 cases. Every case showed rise of blood sugar, from .16 to .27%; duration of cases from 1-7 days, with 2-40 convulsions. In severe cases with lowered blood pressure, low vitality, there is less hyperglycemia, and when first seen in coma is a favorable sign. It seems to parallel intoxication to certain extent, no further response when above that, no rise in umbilical vein at all[35].

The greater share of our work was done with the Epstein method. This is a simple, colorimetric method, using a small amount of blood, while not accurate enough for the research worker is well adapted for clinical observations in that it gives the variations from day to day, or even from hour to hour. The whole process takes but some

fifteen minutes, entails no complicated processes in the laboratory, or expert laboratory training. We modified the process as described in the Journal of the A. M. A. of November 15, 1914, by using small porcelain cups and a sand bath for evaporating. We found there was less chance of sudden boiling over in the cups than with the test tubes supplied with the apparatus.

The blood was always taken before the midday meal, 5-6 hours after breakfast. The average of 21 observations on normal persons was .08 per cent., the lowest .04, the highest .1. We also had the opportunity of following the blood sugar in four diabetics.

Using the modified Kowarsky method as described by Strouse and others (Bulletin Johns Hopkins Hospital, 1915, xxvi, 292) we had numerous difficulties that were not surmounted until the period of service at the County Hospital was completed. There were but two or three complete, satisfactory tests made with this method. One of us (Dahlstrom) found on himself:

11 a. m.	.076 per cent.
12 noon	dinner
1 p. m.	.164 per cent.
2 p. m.	.096 per cent.

This method necessitates good laboratory equipment, especially a high speed centrifuge, and a certain amount of training in laboratory methods, practice with the technique, and a larger amount of blood than the Epstein.

We desire to thank Dr. Warfield for the opportunity afforded to us to study this question.

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CANCER DISCUSSION.

At the May 1st meeting of the Des Moines Pathological Society, Dr. H. R. Gaylord of Buffalo, N. Y., delivered an address "The Problem of Cancer. In addition to active members, a considerable number of invited guests

were present to listen to special features of this problem, which is now exciting more public interest than any other medical subject. The subject is so large and has so many points of interest and apparently so many contradictions that it is quite impossible to state just what is known of cancer today. Dr. Gaylord discussed in particular two points while not proven, present a basis for thorough observation and experimentation. The first line of thought which Dr. Gaylord presented was that cancer cannot be profitably studied as an entity unconnected with the tissue or organ in which it is found, but as a disease of a particular organ or tissue; should be considered as a disease of the uterus or a disease of the breast and so on and not cancer of the breast, uterus or stomach, only as an incident. So far experimental evidence seems to show that there is some local condition in an organ favoring the development of a disease which presents a particular history that has so many things in common with a similar disease of some other organ, that we have come to group them together as a common disease of one or of another organ and used the term cancerous disease. If then, we study cancer of the uterus as one disease and cancer of the stomach as another disease, we are well on the way to a sound clinical knowledge. But why such a disease occurs in an organ or tissue we do not know, we can only assume certain conditions of cell growth.

Dr. Gaylord passed on to the consideration of certain other suggestive facts. It has been shown that certain conditions in the spleen have a very decided influence on cancer growth. In fact a normal active spleen has a decided immunizing influence as relates to cancer which is considerably increased by stimulation; for example, when X-ray stimulus is applied to any part of the body there is a considerably increased lymphocyte activity, and not a few cancers have disappeared under this influence. In this same connection it is found that after a certain number of X-ray applications, the lymphocytes are reduced below the normal, and rapid increase of cancer growth occur. The reduction of lymphocytes following an increase from X-ray stimulation shows an exhaustion of spleen and lymphatic activity and a loss of immunizative influence. It therefore follows that in the treatment of cancer by X-ray, it is of the utmost importance to stop the treatment before the lymphocyte activity of the spleen has become materially lessened. It is well known that cancer most frequently occurs at the decline of functional activity, at the time of life when the spleen-lymphatic system is low in lymphocyte activity and therefore the immunity of certain forms of cell growth is in a measure lost. If now a single or two or three X-ray applications are made, an immunization may be temporarily induced that will cause the growth to disappear, not that the X-ray directly affects the growth—as the X-ray may be applied at a distant part of the body with the same effect—but directly through the increased lymphocyte activity influenced by the spleen. Two very significant facts come to our mind here, which are of much significance according to Gaylord: Cancers occur in the decline of life and more frequently attack organs of high physiological activity soon after the close of the functionating period. It is also true that after forty-five or fifty years of age the spleen activity diminishes; the coincidence of these two and the disappearance or retardation of cancer growth on artificial stimulation of the spleen and the opposite if the spleen is exhausted by overstimulation, is of sufficient significance to fix our attention on the spleen-lymphatic system. The above is in direct accordance with thoughts presented by scientific clinical observers, that the spleen is not the indifferent organ at first believed, after numerous splenectomies with no apparent loss to the individual.—*Jour. Iowa State Med. Soc.*, July, 1916.

A relatively large number of reported cases of a communicable disease as indicated by a high case rate (and more especially when accompanied by a relatively small number of deaths, as indicated by a low fatality rate) usually means that the health department of that city is active and that the cases of the disease are being properly reported by the practicing physicians. It does not usually mean that the disease is more prevalent in that city than in other cities. A high fatality rate may mean that the disease was unusually virulent in a city, that the physicians did not treat the disease in that city with the success usual elsewhere, or that the practicing physicians did not report all of their cases to the health department. On the other hand, an unusually low fatality rate may be due to the fact that the disease in the city was unusually mild, that the physicians treated it with unusual success, that the practicing physicians reported their cases satisfactorily, or that the registration of deaths was incomplete, or the assignment of the causes of death inaccurate.—*Pub. Health Reports.*

Clean Hands. Disease germs lead a hand to mouth existence. If the human race would learn to keep the unwashed hand away from the mouth many human diseases would be greatly diminished. We handle infectious matter more or less constantly and we continually carry the hands to the mouth. If the hand has recently been in contact with infectious matter the germs of disease may in this way be introduced into the body. Many persons wet their fingers with saliva before counting money, turning the pages of a book, or performing similar acts. In this case the process is reversed, the infection being carried to the object handled, there to await carriage to the mouth of some other careless person. In view of these facts the U. S. Public Health Service has formulated the following simple rules of personal hygiene and recommends their adoption by every person in the United States.

Wash the hands immediately

Before eating,
Before handling, preparing or serving food,
After using the toilet,
After attending the sick, and
After handling anything dirty.

— *U. S. Public Health Service.*

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EDITORIALS

THE ANNUAL MEETING.

THE 70th Annual Meeting of our State Society has passed into history. The attendance was not so large as usual but the sessions were well attended, the program was excellent, and the entertainments were most enjoyable. No one who attended could feel otherwise than that he had been more than repaid for his visit to Madison.

From the very start, even before the beginning of the regular sessions, things began to whoop. To our active, industrious, and most capable Secretary we owe a debt of gratitude for his illuminating plan to discuss the Activities of the State Society towards its members. This really was a brilliant idea. The papers read by every one of the twelve Councillors showed that every man had pondered deeply on the subject of his paper and had put his earnest thought into it. These papers will all be published in one number of your Journal.

We have had so much difficulty at various times in securing a proper hall for our meeting, that it was a great joy to be an auditor in a hall far removed from the interrupting noises of street cars and wagons. It was a relief to be able to hear the speakers without straining every nerve. And it was a delight to speak in a place where one did not have to shout in order to be heard.

But to the meeting. The ball was set rolling by the association of County Secretaries and State Officers. It is unfortunate that all the members in the State Society do not attend these live meetings. There is an indefinable spirit about them which is most stimulating. One feels that here he is in the very center of the engine. He sees the actual workings of the machinery, he sees the real driving force which sets the whole fabric of the Society in motion and keeps it moving forward. The "Ginger Tea" was a disappointment for it lacked the ginger of former occasions. If the meetings continue to grow in interest a time may come when the Society meeting will be simply the caudal appendage to the "Ginger Boys". Right there is where the A. C. S. and S. O. has a profound influence upon the general meeting. The program of the parent meeting must continue to improve in order not to be outstripped by the precocious youngster. It is a stimulating factor and bodes well for the future of the Society.

We feel that the Society was fortunate in having three papers by men of the State University Medical Department, two of which were presented by the heads of the Departments of Anatomy and Physiology, the third by the head of the Clinical Department. The more intimate the relationship is between the so-called scientific and clinical branches the more profit to the men in both fields and the better chance for general advancement in the realm of medicine.

The address of our president, Dr. Jermain, maintained the standard set by his predecessors. The suggestion of sectioning the society is a timely one although the question has been informally discussed in the sessions of the House of Delegates for the past three or four years to our own knowl-

edge. This time definite action was taken. (See editorial "Some Doings of The House of Delegates.") The scheme has worked well in other State Societies. It should work well with us. We have always felt that not enough men could take part in the Annual Meeting on account of the brief time at our disposal. To obviate this defect one group of specialists has organized a separate meeting so that opportunity may be given to air the views of the members. Now there is no longer any reason for the existence of the Oto-Ophthalmic Society, so far as we can see. They should come in as an integral part of the sectioning of the Society.

Madison looked her best and certainly handed to her visitors a very specially fine brand of weather.

The special addresses in Surgery and Medicine were of a high order. Dr. Sharpe's illustration by means of moving pictures of an operation for subtemporal decompression was most instructive and entertaining. Dr. Peabody's address was a splendid summary of cardiac irregularities and must have been most interesting to all the doctors. These two addresses will be published in course of time so that all members who were not present at the meeting may read them.

The special meeting to consider the Hospital Situation proved more entertaining than any one had reason to suspect. We knew that Dr. Edward Evans would give us a good talk but we were totally unprepared for the altogether unique and straight-from-the-shoulder address of Dr. Bowman. He called a spade a spade, told us experiences he had had with whole towns of fee-splitting doctors. In one place following his straight-forward denunciation of the man who split fees as a thief and a liar, he was later waited upon by a Committee of doctors who told him they knew they were wrong but no one man was strong enough in the town to break the combination. They agreed to see that things were bettered and they did. Dr. Bowman spoke of the bearing such a condition of affairs has on hospital management. He instanced the case of one Superintendent who was a czar in his hospital. No man worked in the hospital who did not do competent and honest work. He blamed Boards of Trustees for much that is evil in hospital management. He said he felt sure that when business men had the situation put up to them in a business way as an investment which should be handled as a successful business is managed, he had no doubts but that money to equip and run hospitals would be forthcoming. He instanced case after case of hospitals with no records of patients except the name, address and receipt for bill paid. His talk was necessarily rambling and not suitable to use in the form in which he gave it. It would be largely flat. It would lack the punch which his personality gave to his anecdotes. His central ideas were honesty in the profession and honest and capable management of hospitals.

All in all it was a bully meeting. The arrangements Committee did its work well and deserves the thanks of the Society. Next year we meet in Milwaukee.

SOME DOINGS OF THE HOUSE OF DELEGATES.

At the recent meeting in Madison the House of Delegates took up several matters which were of considerable importance to the Society. The House passed a resolution placing itself on record as favoring the principle of Compulsory Health Insurance. It passed a resolution urging the creation by Congress of a Federal Department of Health with a member of the President's Cabinet as Secretary of the Department. A copy of this resolution will be mailed to every congressman from the State of Wisconsin. All members of the Society are urged to use their influence with the Congressmen in the several districts. A brief resumé of the purposes of the bill is given in this issue in an editorial.

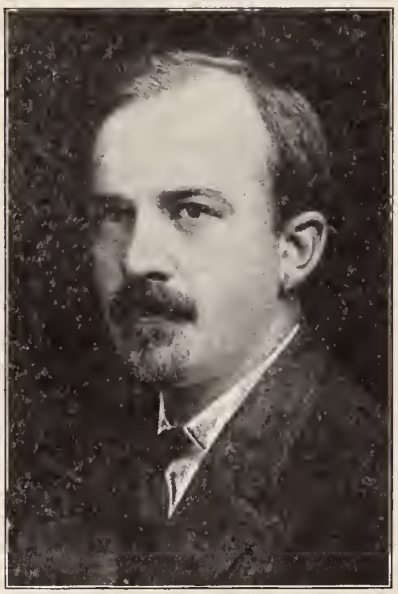
The House established a precedent in electing the Secretary of the State Society a Delegate to the A. M. A. Meeting and favored the election yearly of the State Secretary as a Delegate from the State Society.

Probably the most important matter discussed and passed upon was the division of the Annual meeting of the Society into three sections, one on Surgery, one on Oto-Ophthalmology, and one on Internal Medicine. The plan is that recommended by the retiring president in his Annual Address printed in this number. We urge all to read this address. It is quite possible that the actual details of the change will be modified when the program committee is appointed and holds its first meeeing. We do not wish to seem to intrude our opinion. We only throw out this suggestion for discussion. The first afternoon of the first day shall be a

general session. The address in Surgery is to be given that afternoon. The morning of the second day shall be devoted to sectional meetings, the afternoon to general sessions and the Address in Medicine. The morning of the last, third, day shall be again sectional meetings.

As we have spent considerable thought on this matter we ask a hearing for this suggestion. Do not condemn it off-hand. The committee will, we feel sure, be glad of any suggestions from any member of the Society. We are all working towards the same ends and we want the best means of attaining those ends.

OUR NEW PRESIDENT.



DR. H. E. DEARHOLT.

If one may judge of the satisfaction expressed over an event by the pleased countenances of those who learned of the event, then we make bold to affirm that H. E. Dearholt's election to the presidency of the State Society was well timed and was a fitting tribute to both the man and the work which, under his skillful guidance, has reached such a high plane of medical-social service. Dr. Dearholt needs no introduction to the members of the State Medical Society. We doubt if anyone is better known in this State, certainly, than he. We go further and say that his deserved reputation is not only State-wide but Nation-wide and we should congratulate ourselves that we shall have such a man to guide the policies of the State Society during the coming year.

He was born in Reedsburg, Sauk County, Wisconsin, on March 2, 1879. He graduated from Rush Medical College of Chicago in 1900, and after special postgraduate work in New York and Europe he entered private practice in Milwaukee in 1902, limiting his practice to deformities and diseases of bones and joints. In 1906, in conjunction with Dr. Thomas H. Hay, Dr. Dearholt established the first permanent private sanatorium in Wisconsin, under the title of River Pines, near Stevens Point, for the treatment of tuberculosis. Since that time he has actively participated in the general management. In 1905 he assumed the managing editorship of the Wisconsin Medical Journal and between that year and 1907 was orthopedic surgeon to the Milwaukee County Hospital. Since 1906 Dr. Dearholt has been consulting and attending orthopedic surgeon to the Children's Free Hospital. He is a member of the American Medical Association; the Wisconsin Medical Society; the Milwaukee Medical Society of which he served as secretary for some months; the National Society for the Study and Prevention of Tuberculosis; the Wisconsin Anti-Tuberculosis Association of which he is now secretary; the International Congress on Tuberculosis, being a member of the central committee of that body; and the American Health League. In a social and civic way he is identified with the Alpha Mu Pi Omega fraternity, the Civic Club, the University Club, and the Merchants' and Manufacturers' Association.

THE PUBLIC HEALTH NURSE.

There can be no doubt in the mind of any thinking man or woman who looks around him that there is a constantly growing and, in some quarters, insistent campaign for better health in the smaller communities. For a long time the large cities have had their active Boards of Health, their Medical Health Commissioners, their Visiting Nurses, their Social Workers. It has been oft repeated that a modern city is healthier than a small rural community.

Now the small places have a great opportunity to learn and to apply regulations for health and prevention of disease, whether it be individual or group prevention.

A splendid new and far-reaching idea has been carried through by the Wisconsin Anti-Tuberculosis Association in co-operation with the Milwaukee Visiting Nurses' Organization and the City Health Department. This is a training school for public health nurses. The demand for these nurses is great but the supply is limited.

We understand that this is the first training school for the education of nurses along this line of work in the country. This is a real step forward in the great campaign for better health. The public health nurse will be able to accomplish work which no health officer or other public health official could do. Once established in a community it should not be a great while before actual results should be seen. It was not long before the cities found her work indispensable and there is no reason to believe that she would be a failure in the country districts. The truant officers, the health officers, all find her a valuable asset to the efficient handling of cases coming under their notice.

A little pamphlet entitled, "What the Public Health Nurse May Mean to You," is distributed by the Wisconsin Anti-Tuberculosis Association. We wish we could be sure that every physician reads this folder. We know that then others in far-off places would be told about the public health nurse and by and by the people would want to try one. That's what is wanted, a trial. No one can conceive of a community which has once seen the work of the public health nurse, ever returning to its former let-well-enough-alone attitude.

A NEW DEPARTMENT.

A SHORT while ago a suggestion was offered that the Journal include a Department of Nursing. It was urged that the Nurses had an active state organization, were interested in all things medical, especially sociologically medical, were endeavoring to make themselves a force in the State and were a part of the medical service of the public. They very much desired a medium through which they could bind themselves closer together for their and the public good.

The Committee on Publication saw no reason to deny the use of the columns of the Journal to the Nurses and the Editor felt that such a Department would aid to the usefulness of the Journal.

With this number the trial will be made. Miss Cora V. Nifer, Assistant Superintendent of Milwaukee County Hospital Training School for Nurses, will be Editor of the new Department. It is hoped that both Nurses and Doctors will contribute articles and items of interest to this department.

THE SO-CALLED BACILLUS EPILEPTICUS.

ON another page we are printing an abstract from the New York Medical Journal with an illustration. We feel that some explanation should accompany this abstract.

Dr. C. A. L. Reed as all know is a Surgeon, not a Bacteriologist. That is no stigma upon Dr. Reed. A man can't be everything in Medicine in these days of specialization and intensive laboratory research. Dr. Reed claims to have made a remarkable discovery. We have been led to believe that the discovery was that of a very common, well-known, air-contaminating organism. We are not at all impressed with Dr. Reed's conclusions.

As a matter of fact, it strikes us as a little unusual for a scientist to write to all State Journals, enclose an abstract of a paper which seems to confirm his results, and also send an electrotype of the illustration. We are not familiar with that sort of scientific attempt at confirmation of a discovery. Dr. Reed says the Journal of the A. M. A. refused to publish Hinkelman's article. Possibly the Journal had reasons which were good ones. Heaven forbid that any Journal should have to publish every article submitted to it!

Our candid opinion is that the Journal of the A. M. A. had good reason to believe that there was only a mythical bacillus epilepticus and did not care to lend its columns to controversy on the subject.

Dr. Reed *may* be right, but all the available evidence points to the conclusion that since he was not a trained Bacteriologist, he allowed himself to be led astray by certain findings which he misinterpreted.

Such mistakes made in perfect honesty have been made before. This may actually so stimulate work on epilepsy that some really valuable and lasting contribution may result. Let us hope that such will be the case, and that in the not distant future we may have some knowledge of the etiology of epilepsy.

THE INFANTILE PARALYSIS SITUATION.

IT would appear from the published Health Reports that the epidemic of poliomyelitis is on the wane. This has been a most widespread epidemic, the greatest we have known in this country.

Now that we have calmed down after all the excitement, it might be well to ask ourselves if we were not swept off our feet by the public hysteria concerning the disease.

We are told that the mortality rate for the city of New York is lower this past summer, in spite of the epidemic of poliomyelitis, than ever before. We are also informed that in Philadelphia about one-third of the reported cases were not poliomyelitis. So thoroughly are we saturated with the idea of the universality of the disease that in a case not at once diagnosable, we are prone to think first of poliomyelitis and last of the most obvious diagnosis. To such a point have we been led by the panicky public.

It is well to remember that poliomyelitis is endemic in this country. In 1908 there were a number of cases in Milwaukee and in Eau Claire. There is no record of any public hysteria at that time.

We feel that the situation has been made worse by over-publicity. We see a great stride forward in health matters with the co-operation of the press. But with a keen eye always alert for sensation and exaggeration in news gathering and printing, the newspapers have fed the beast, panic, and now he runs wild.

It is a question whether there may not be too stringent regulations in regard to quarantine, segregation of children, closing of schools, etc. It seems to us that we should be reasonable in the face of this agitation and endeavor not to take an extreme ground at either end. Shall we advise schools to be closed if a suspected case occurs among the children? We think not. The case must be a proved one. We believe that abortive cases without paralysis are most uncommon outside of the actual epidemic area. So that no case in this part of the country, in our opinion, should be diagnosed poliomyelitis unless there is actual paralysis of some muscle or muscle group. We do not wish to convey the remotest idea that we are opposed to all rational procedures to combat any kind of disease. Our plea is for saneness in the face of widespread and, it seems to us, not altogether justified panic.

THE COUNTY SOCIETY.

WE have always felt that it was a distinct advantage to attend our County Society meetings. We have various reasons to offer why we think as we do. Because the Pennsylvania State Journal has put our reasons in better form than we can, we herewith print them and hope by so doing to induce him who reads to go out and lead into the County Society some member of the profession who should belong.

WHY YOU SHOULD JOIN YOUR COUNTY MEDICAL SOCIETY.

1. Because it is a postgraduate school at home from which you will derive pleasure and increase your practical and scientific medical knowledge from the papers read, the discussions and clinical reports, making you a better and more successful practitioner.
2. Because it is the best means to promote friendships, mutual respect and pleasant social relations in your professional life.
3. Because it is the best means of avoiding envy, jealousy, local animosity and internal dissensions which have always discredited our profession, and if you will permit them, will seriously damage your professional career.
4. Because it will help you to improve your financial condition by aiding you to better your business methods in your work.
5. Because it tends to promote unity by which the profession gains in influence and commands a higher respect from the community.
6. Because the County Medical Society makes it possible to unite the profession into a compact organization to its material advantage and that of each of its members.
7. Because it will enable you to progress in your medical career and become a member of the State and National Medical Associations.
8. Because you owe all this to yourself and to your professional co-workers.

THEREFORE: JOIN YOUR COUNTY MEDICAL SOCIETY.

"IN UNION THERE IS STRENGTH."

NEWS ITEMS AND PERSONALS

Dr. C. M. Gould, health commissioner of Superior has been granted a three months' leave of absence because of ill health. Dr. D. R. Searle, assistant, will become acting commissioner.

Dr. P. H. Lindley of Chippewa Falls is at a Madison Hospital recovering from two recent operations—one for gall-stones and one for appendicitis.

Dr. Albert J. Pullen, Fond du Lac, is a candidate for State Senator, on the Republican ticket.

Dr. D. R. Searle, Superior, defeated for the Republican nomination for coroner at the recent primary election, will become an independent candidate.

Major James W. Frew, Milwaukee, of the First Wisconsin Sanitary Detachment, now in Texas, has been named assistant chief surgeon of the Twelfth Division.

Dr. Byron L. Robinson, Oconomowoc, has been appointed head of the Department of Anatomy at the University of Mississippi, at Oxford.

Dr. John G. Hirschboeck, physician at the Emergency Hospital, Milwaukee, has resigned to accept a position at Forestville with Dr. J. Donovan.

Dr. J. P. Donovan, Madison, has returned to his office after an absence of three months spent in post-graduate work at Chicago.

Dr. Robert Bowen, Oshkosh, has left for Berlin, Germany, with a surgical unit. Dr. Bowen will be gone about six months.

It is rumored that Dr. Otho Fiedler, Sheboygan, will head a company for the purchase of Born's Park at Sheboygan, which it is proposed to develop into one of the largest and best sanitariums in the middle west.

Drs. Karl Doege, William Hipke, H. H. Milbie, W. G. Sexton, V. A. Mason and R. P. Porter of Marshfield, have entered into a business consolidation, and as soon as arrangements now under way are completed, they will merge their interests and practice into one big firm, with a manager to look after the affairs of all. For offices for this new enterprise an entire floor has been rented for a term of five years. The various physicians connected with the consolidation will specialize on certain diseases, the whole to compose a board of consultation when necessity requires.

A bronze bust of the late Dr. Nicholas Senn, Wisconsin surgeon, has recently been placed on exhibition in the medical collections of the State Historical Museum at Madison.

Ladysmith, Wisconsin, is to have a hospital, to be known as St. Mary's Hospital. The building is to be four stories in height and is to cost about $50,000.

The Milwaukee Infants' Hospital opened the doors of its new $50,000 home on September 7th. The institution was founded in 1882. The hospital, which will have connected with it a free dispensary, a clinic, and a training school for nurses, has been planned with a view to being made the center for education in child welfare work. The new building will accommodate fifty babies. The hospital's work is entirely with feeding cases. All babies are cared for free of charge. The hospital aims to watch over all of its discharged cases until they are five years old.

The recent establishment at Rhinelander of a branch of the State Laboratory of Hygiene has already been justified by results. Use of its facilities for analysis and diagnosis has been made by practically every physician in the northern part of the state, according to Rhinelander reports. The laboratory has received hundreds of specimens for analysis during the last three months.

Congress has recently made an appropriation for 33 additional Assistant Surgeons in the United States Public Health Service. These officers are commissioned by the President, and confirmed by the Senate. The tenure of office is permanent, and successful candidates will immediately receive their commissions. After four years' service assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Passed assistant surgeons after twelve years' service are entitled to examination for promotion to the grade of Surgeon. Assistant Surgeons receive

$2,000; passed assistant surgeons $2,400, surgeons, $3,000; senior surgeons, $3,500, and assistant surgeon-generals $4,000 a year. Examinations will be held every month or so in various cities, for the convenience of candidates. Further information will be furnished by addressing the Surgeon-General, United States Public Health Service, Washington, D. C.

REMOVALS

Dr. W. H. Banks, Hudson to Windom, Minn.

Dr. G. F. Scheib, Fond du Lac to Urbana, Ill.

Dr. G. H. Lawrence, Galesville to Fond du Lac.

Dr. C. J. Wilson, Marinette to Goodman.

Dr. L. W. Juergens, Eureka to Milwaukee.

Dr. F. F. Slyfield, Algoma to Duluth, Minn.

Dr. M. E. Holliday, Appleton to Oshkosh.

Dr. W. C. L. Zimmermann, Milwaukee to Reedsburg.

Dr. M. S. Corlett, Waterford to Westgate, Iowa.

Dr. I. Mark, Ironwood, Mich., has located at Washburn, Wis.

Dr. E. W. Bedford, recently of Cook County Hospital, Chicago, has located at Sheboygan Falls.

Dr. R. J. Fairchild has located at Embarrass for the practice of his profession.

Dr. Clarence Sonnenberg of St. Vincent's Hospital, Indianapolis, has located at Sheboygan.

Dr. H. C. Mix, of Green Bay succeeds Dr. F. F. Slyfield at Algoma.

Dr. F. H. Powers of Baraboo has disposed of his practice at Kilbourn and New Lisbon to Dr. Walter C. Jones.

Dr. George H. Smith, Peshtigo, has removed to Hortonville, where he succeeds Dr. M. E. Rideout, who retires from active practice.

Dr. F. J. Gosin, Milwaukee, has removed to De Pere, where he enters into partnership with his brother, Dr. D. F. Gosin.

Dr. John McGovern of Patosi has disposed of his practice to Dr. Bowers of Balsom Lake.

Dr. Russell Johnson of Stoughton has located at Portage, and is associated with Dr. F. D. Bentley.

Dr. W. H. Folsom, of Markesan, but recently located at Gary, Ind., has located at Fond du Lac.

MARRIAGES

Dr. E. V. Brumbaugh and Miss Edna Alice Mason, both of Milwaukee, on September 8th.

Dr. Hugh Fay Ringo, Montreal, and Miss Agnes L. Johnson, Madison, at Pier Cove, Mich., on August 29th.

Dr. Bernard O. Bendexon, Beachwood, and Miss Olive Stoupe, Milwaukee, recently.

DEATHS

Dr. William S. Pickard, Mikana, Wis.; Northwestern University Medical School, Chicago, 1886; aged 57; a Fellow of the American Medical Association; for many years a practitioner of Maywood, Ill.; died in Mikana, September 10, 1916.

Dr. Edward A. Schmitz, Wauwatosa, died on August 31, after a long illness, aged 55 years. Dr. Schmitz was born in Milwaukee and taught in country schools, later taking up the study of medicine at the Chicago College of Physicians and Surgeons, graduating in 1884. He was located at Wauwatosa twenty-two years, and was at the time of his death health commissioner of that village.

Dr. Arthur Marsden, Rio, died suddenly of heart failure on September 1, 1916, aged 47 years. Dr. Marsden was a graduate of the St. Louis College of Physicians and Surgeons in 1895. He was a member of Columbia County and the State Medical Societies.

Dr. John A. McLeod, Milwaukee, died suddenly on September 22, 1916, aged 60 years. John

Alexander McLeod was born in Curry Hill, Ontario, Canada. He studied at the University of Michigan and took up a medical course at McGill University, Toronto, graduating in 1878. Following his graduation he located at Vulcan, Michigan, and for a number of years lived at Ironwood, Michigan, where he served as physician for the Newport Mining Co. Dr. McLeod came to Milwaukee in the early eighties, and had been located there up to the time of his death.

Dr. Bernard C. Gudden, Oshkosh, suicided on September 15, 1916. Dr. Gudden was born in the town of Black Wolf fifty-nine years ago. He received much of his education under the tutelage of his father. His medical degree was obtained from Rush Medical College in 1879. He spent two years at Cook County Hospital and later took a trip abroad for professional advancement. In 1881 he located at Oshkosh. One of the most notable achievements of Dr. Gudden's was the establishment and operation of the Oshkosh Clinic, a general hospital, which he conducted until ill health compelled him to retire. He was a member of the Winnebago County and the State Medical Societies.

Dr. Thomas Fitzgibbon, Milwaukee, died at his home in St. Francis, on September 18, 1916, following an illness of several years' duration, aged 62 years. Thomas Fitzgibbon was born March 1, 1853, at Troy N. Y. When four years old he was taken to Fond du Lac by his parents, and his early education was obtained in the schools of that city. After teaching school he entered Rush Medical College, graduating in 1882. Following a year's practice at Chicago, he took up his residence at Plymouth. In 1894 Dr. Fitzgibbon came to Milwaukee, becoming an instructor at Milwaukee Medical College, and when that institution was merged with Marquette he continued in a similar capacity. He retired from active practice six years ago. He was a member of Milwaukee County and the State Medical Societies.

Dr. L. A. Bishop, Fond du Lac, died on September 2, 1916, aged 70 years. The immediate cause of death was a hemorrhage of the brain. The doctor had, however, been in ill health for three years, and had retired from active practice in 1914.

Llewellyn A. Bishop was born in the town of Eden, Fond du Lac County, August 24, 1846. Dr. Bishop spent practically his entire life in Fond du Lac County, his youthful days being spent upon his father's farm. He supplemented his district school education by a course in the Fond du Lac high school. His medical education was obtained at Hahnemann Medical College, in which he completed his course with the class of 1870. On March 16, 1870, he was married to Miss Cynthia A. Patchen. Dr. Bishop was twice mayor of Fond du Lac. He was a member of Fond du Lac County and the State Medical Societies.

SCIENTIFIC INFANT FEEDING.

Scientific infant feeding during the past six years has made progress with leaps and bounds. While the monumental work of Rotch has crumbled to the ground his life work has made a herculean impression on the whole subject. His writings have stimulated an army of investigators in this very vital subject and as a consequence we see results of a very tangible nature. From his complicated percentage system of infant feeding we have seen gradually evolved a system which is characterized by its great simplicity. An endeavor to make cow's milk resemble mother's milk is today anachronistic. Cow fat and cow protein will always be what they are and their biological nature is *facile princeps* our difficulty and can not be changed. Today we see the most scientific infant feeder prescribing dilutions of whole milk with the addition of a well cooked cereal and one of the disaccharides to supply the infant's organism with sufficient calories. From studies of nutrition we know just how many calories the infant's organism can tolerate. An over-supply of these calories can damage our boiler; similarly a paucity of heat units over an extended period can see our flame go out. The different influences which place a burden on the infant's organism have been studied and taken cognizance of in our prescribing. Ignoring the baneful influences of heat and excess of clothes will jeopardize the life of our infant.

The therapeutic value of casein is well recognized and frequently taken advantage of. Because starch is not a constituent of breast milk is no reason today for keeping starch out of the diet of the young infant provided it is well cooked. The numerous methods advised to prevent the firm coagulation of cow's milk in the stomach have given way to the simple expedient of boiling the milk. Cow fat can be digested but at times it may be necessary to keep it entirely out of the diet. Its constipating effect owing to its formation of soap in the bowel of the infant is one of the paradoxes we must reckon with; a similar one is its effect to depress the weight curve owing to its abstraction of mineral salts.

The student of today is no longer required to wrestle with algebraic formulas in order to acquire a knowledge of scientific infant feeding.—*Jour. Mo. State Med. Assoc.*, Sept., 1916.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1915-16

L. F. JERMAIN, President
H. E. DEARHOLT, President-Elect
ROCK SLEYSTER, Waupun, Secretary

JOSEPH SMITH, Wausau
1st Vice President
DANIEL HOPKINSON, Milwaukee, Ass't Secretary

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S. S. HALL, Ripon, Treasurer

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TERM EXPIRES 1917
1st Dist., M. R. Wilkinson Oconomowoc
2nd Dist., G. Windesheim - - Kenosha

TERM EXPIRES 1918
3rd Dist., F. T. Nye - - - - Beloit
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1919
5th Dist., W. F. Zierath - Sheboygan
6th Dist., H. W. Abraham - - Appleton

TERM EXPIRES 1920
7th Dist., Edward Evans - La Crosse
8th Dist., T. J. Redelings - Marinette

TERM EXPIRES 1921
9th Dist., T. H. HAY, - Stevens Point
10th Dist., R. U. Cairns - - River Falls

TERM EXPIRES 1922
11th Dist., J. M. Dodd - - Ashland
12th Dist., D. J. Hayes - - Milwaukee

Delegates to American Medical Association

H. M. BROWN, Milwaukee
ROCK SLEYSTER,, Waupun
EDWARD EVANS, La Crosse

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Committee on Medical Defense

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S. S. HALL, Ripon
A. J. PATEK, Milwaukee

Committee on Health and Public Instruction

W. F. ZIERATH, Shoboygan
J. M. BEFFEL, Milwaukee
EDWARD EVANS, La Crosse

Program Committee

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	W. T. O'Brien, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	C. L. R. McCollum, Forest Junction	N. J. Knauf, Chilton, Wis.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	C. S. Sheldon, Madison	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. F. Eames, Egg Harbor	T. C. Proctor, Sturgeon Bay.
Douglas	W. H. Zwickey, Superior	W. A. McEachern, Superior.
Dunn-Pepin	F. E. Butler, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	J. C. Baird, Eau Claire	E. P. Hayes, Eau Claire.
Fond du Lac	A. J. Pullen, North Fond du Lac	H. C. Werner, Fond du Lac.
Grant	N. E. McBeath, Livingston	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	J. A. Kiethly, Palmyra	W. A. Engsberg, Lake Mills.
Juneau	C. C. Vogel, Elroy	A. T. Gregory, Elroy.
Kenosha	J. H. Cleary, Kenosha	J. F. Hastings, Kenosha.
La Crosse	H. E. Wolf, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	F. V. Watson, Antigo	J. C. Wright, Antigo.
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	S. M. B. Smith, Wausau	R. M. Frawley, Wausau.
Marinette-Florence	E. E. Axtell, Marinette	R. R. Heim, Marinette.
Milwaukee	Franz Pfister, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D. Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	R. C. Faulds, Abrams.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	E. A. Morse, Appleton	W. N. Moore, Appleton.
Ozaukee	O. J. Heuth, Cedarburg	G. T. Savage, Port Washington.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B Bock, Sheboygan	Arthur Knauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	W. H. Banks, Hudson.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	J. B. Noble, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. P Yedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

BROWN COUNTY

"Value of the X-Ray in Diagnosis" was illustrated by Dr. P. M. Hickey of Detroit, before a large gathering of the members of Brown County Medical Society, at a meeting in the Clinic Building, held on September 18, 1916.

COLUMBIA COUNTY.

On September 13, 1916, the Columbia County Medical Society held its regular meeting in the city hall at Portage. The meeting was called to order by the president, Dr. Force. Minutes of the last meeting were read and approved. Motion was made and carried to grant Dr. R. J. Groves of Lodi permission to join the Dane County Medical Society. Social insurance was discussed, and the secretary instructed to read a paper on "The Present Status of Social Insurance" at the annual meeting in December, whereas the future possibilities of Social Insurance were assigned to Dr. Bentley, also to be read at the same meeting. Dr. Rock Sleyster read a paper on "Medical Ideals and the County Society." A very fine paper, and it was to be regretted that all members were not present. After this paper Dr. Sleyster talked about the benefits derived from our State Society and especially from the Medical Defense Act. He showed plainly that the members were fully as well protected at $2.00 per annum with the society, as at $15.00 to $25.00 with regular insurance companies. This was followed by a general discussion.

A. F. Schmeling, M. D., *Secretary.*

DODGE COUNTY

A meeting of Dodge County Medical Society was held at Minnesota Junction, on Friday, September 1st, at 10:30 A. M. Dr. L. M. Warfield, Milwaukee, spoke on Diabetes.

E. E. Elliott, M. D., *Secretary.*

DUNN COUNTY

Dunn County Medical Society enjoyed a picnic at Riverside Park, Menomonie, on September 28, 1916. Dr. D. H. Decker of Waupaca spoke on "The Early Medical History of Dunn County."

FOND DU LAC COUNTY

The regular bi-monthly meeting of the Fond du Lac County Medical Society was held at The Palmer in the city of Fond du Lac, Wednesday evening, September 13, 1916. Dr. C. W. Hopkins of Chicago, Chief Surgeon of the C. & N. W. Ry. gave an illustrated lecture on "Some Interesting and Unusual Fractures and Dislocations and the Technique in Handling." The lecture was preceded by a dinner at which sixty physicians from Fond du Lac and adjoining counties were served.

H. C. Werner, M. D., *Secretary.*

The following resolutions were adopted by Fond du Lac County Medical Society:

"*Whereas,* In His infinite wisdom our Heavenly Father has deemed it best to summon from our earthly surroundings our colleague, Dr. Llewellyn A. Bishop, and

Whereas, We bow with those who mourn in humble submission to His divine will, nevertheless we deeply deplore the great loss which has fallen, not only upon the family, but also on our organization.

Therefore, We deem it right and fitting that proper recognition be had of his noble character and beautiful life, abounding as it did in acts of kindness, and further to express to the bereaved family our sincerest sympathy in this hour of desolation; and be it

Resolved, That we bear witness to the devoted and genuine service which Dr. Llewellyn A. Bishop has rendered, and to the influence his life had upon those with whom he came in contact, be it further

Resolved, That a copy of these resolutions be placed in the minutes of the Society, that a copy be sent to the bereaved family, also to the daily press, and the Wisconsin State Medical Journal.

G. B. McKnight,
A. J. Pullen,
H. C. Werner,
Committee."

FIRST DISTRICT MEDICAL SOCIETY.

The First District Medical Society met at Jefferson, Wisconsin, August 2, 1916. Dr. Otto H. Foerster, Milwaukee, read a very interesting paper on "The Common Forms of Skin Diseases", and Dr. Fred J. Gaenslen, Milwaukee, one on "The Orthopedic Treatment of Paralysis Following Infantile Paralysis". Both papers brought out a good many questions. Election of officers followed: President. Dr. W. A. Engsberg, Lake Mills; vice-president. Dr. R. E. Davies, Waukesha; secretary-treasurer, Dr. S. B. Ackley, Oconomowoc.

S. B. Ackley, M. D., *Sec'y-Treas.*

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY. SURGICAL ASSN.

The tenth annual meeting of the Minneapolis, St. Paul and Sault Ste Marie Railway Surgical Association will be held December 12th and 13th, Hotel Radisson, Minneapolis, Minnesota.

J. H. Rishmiller, M. D., *Secretary.*

NINTH COUNCILOR DISTRICT.

The autumn meeting of the Ninth Councillor District Medical Society was held on September 28, 1916, at Wausau. 4-6 P. M. Clinic at the Marathon County

Asylum on "Nervous and Mental Diseases" by Dr. Peter Bassoe, Chicago; 7 P. M. Dinner at the Wausau Club, followed by a talk on "The Medical and Surgical Aspects of the European War", illustrated with X-ray pictures, by Dr. Geo. Davis of Chicago, who spent several months with one of the American units, assigned to the Anglo-French front.

PORTAGE COUNTY

A quarterly meeting of Portage County Medical Society was held at the office of Dr. W. W. Gregory, Stevens Point, on September 27th. Owing to unfavorable weather the attendance was small, but eight members being present. There was a demonstration of the lungmotor, which has recently been purchased by the Stevens Point Lighting Company, and which is available for general use. Dr. V. J. Shippy of Stevens Point was elected to membership.

WASHINGTON-OZAUKEE

The Washington and Ozaukee County Medical Societies held a joint meeting at West Bend on September 27, 1916. Dr. Frank Smithies of Chicago read a paper on "The Diagnosis and Treatment of Chronic Intestinal Stasis".

A. H. Heidner, M. D., *Sec'y, Washington County.*

WAUKESHA COUNTY

At a meeting of the Waukesha County Medical Society at the home of Dr. Fitzgerald in Eagle, the proposed tri-county tuberculosis sanatorium proposition was discussed, and the standing committee of the society, together with Dr. Brockway of the State Institution, was empowered to act with a committee of three of the Walworth County Medical Society to urge unity before the three counties assemble in November.

Dr. Paul Felt of Waukesha read a paper on "The Colony Treatment of the Insane". Dr. F. M. Schmidt of Eagle briefly discussed Occupational Treatment of the Insane in our State Institutions, and the method employed in gaining confidence of the patients under treatment, to affect a cure in the shortest possible time in acute cases.

WAUPACA COUNTY

At a regular meeting of the Waupaca County Medical Society held at New London on September 4, 1916, two valuable papers were presented by Drs. W. Irvine and C. J. Combs—"Acromegalia" was the subject of Dr. Irvine's paper, while Dr. Combs chose for his subject "Enterostomy with indications for same". Both were well received.

The annual election of officers resulted as follows: President, Dr. W. Irving, Manawa; vice-president, Dr. F. J. Pfeiffer, New London; secretary-treasurer, Dr. Geo. T. Dawley, New London. Dr. Freemont E. Chandler, Waupaca was elected to membership.

Geo. T. Dawley, *Sec'y-Treas.*

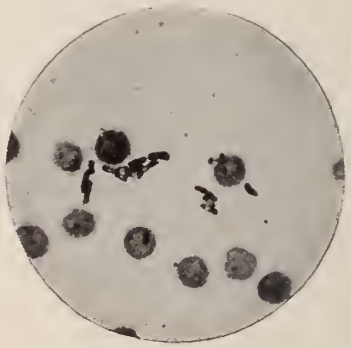
ABSTRACTS

Reed's Bacillus of Epilepsy. By A. J. Hinkelmann, Galesburg, Ill., Director, Galesburg Laboratory. With one illustration. Through the work of Reed,* the question of a specific organism as the exciting cause of the seizures of Epilepsy has been set forth. Having previously worked from a different basis with an organism I believe is the same as the one isolated by Reed, and having since the appearance of his articles, succeeded in finding the organism in the blood of an isolated case of epilepsy, I am in a position to add a few facts to what Reed has already said. I am sure this will be of further aid to the profession in the direction of reaching final conclusions as to the significance of the organism.

Method of Invasion of the Human System.

Under this head, Reed has made very clear the point that the organism is evidently taken into the intestinal tract by way of the mouth, and enters the blood through

LEGEND.



Bacillus epilepticus directly in blood smear from an epileptic patient five hours after seizure.

a cecal or an appendiceal focus, and leaves the question open as to the danger of communication. What would be the consequence in case the organism was ingested by a normal individual, and to what extent may those with predisposing lesions expect to escape infection?

From a basis of experiments I conducted during the summer of 1915, and before I had any knowledge of the pathology of the organism, it may be stated that it is a very frequent inhabitant of the intestinal tract of probably the majority of people. My conclusions at the time of my experiments were that it is one of the regular members of the so-called intestinal bacteria.

My interest in the organism was its high resistance to germicidal agents, and through this fact it becomes an

*Reed, Charles A. L.—Journal of the American Medical Association, January 29, and May 20, 1916.

easy matter to demonstrate its presence in the intestinal flora and also that it is commonly present. It will live in phenol solutions of from 5 to 10 per cent for many hours and a much higher strength is necessary to kill it instantly. Among the very large number of different species of bacteria that are usually found in the intestines, it is commonly the only one that will survive a thorough treatment of the stool with a 5 or 10 per cent phenol solution.

My method of isolation was as follows: From 25 to 30 grams of solid feces were made into an emulsion with 50 c.c. of a 5 per cent. solution of phenol and allowed to stand for 30 minutes or an hour; cultures were made on agar slants and incubated. I have never made such cultures from the stools of epileptics with the view of noting how numerously the organism is present, but in normal individuals, a loopful of the above emulsion spread over an agar slant will yield from 1 to 6 colonies after twenty-four hours of incubation.

The organism is highly haemolytic, and to this last fact may be due a part of the pathological conditions present in epileptics. Cultures made on blood agar plate will show a haemolytic spot at the point of a growing colony long before the colony itself becomes visible. In the case that came under my observation, I found it abundantly present in the capillaries, and both the spores and the organism could easily be demonstrated in smears from the blood directly.

Conclusion.

In view of the fact that the organism does enter the circulation and there multiplies into great numbers and is so generally found in the blood of epileptics, the conclusions of Reed as to its specific nature become at least very plausible. It would be hard to conceive that an organism with such a high haemolytic property could enter the circulation and multiply to such numbers as smear preparations from the blood indicate without producing diseased conditions within and resulting in corresponding clinical manifestations without.

At any rate, what has already been established in regard to the organism makes the question one most worthy of serious consideration and extensive investigation. The universal presence of the organism in the intestinal flora is no argument against its probable pathology, but simply adds to the importance of the gateway through which it enters the blood stream, in consideration of the question of treatment.

If further investigation should finally establish that the BACILLUS EPILEPTICUS is the exciting cause of the seizures of this disease, little probably can be hoped for in the way of prophylaxis or cure through efforts to prevent the organism from entering the intestinal tract or to eradicate it when present. The best attention probably will have to be directed toward those lesions which open the way for it from the intestines into the circulation.—*New York Medical Journal.*

WASHINGTON, *September 19, 1916.*—A preliminary statement just made public by Director Sam. L. Rogers, of the Bureau of the Census, Department of Commerce, and prepared under the supervision of Mr. Richard C. Lappin, chief statistician for vital statistics, shows a death rate of 13.5—the lowest on record—per 1,000 estimated population of the registration area of the United States in 1915. This rate was based on 909,155 deaths returned from 25 states (in one of which, North Carolina, only municipalities of 1,000 population and over in 1910 were included), the District of Columbia, and 41 cities in nonregistration states, the total population of this area in 1915 being estimated at 67,337,000, or 67.1 per cent of the total estimated population of the United States.

There is a widespread and increasing interest throughout the country in respect to vital statistics. The states of North and South Carolina, which recently enacted the "model law" for the registration of births and deaths, were admitted to the death-registration area for 1916, increasing the estimated population of the area to 70.2 per cent of the total for the United States in that year.

LOWERING OF DEATH RATES DURING DECADE.

The death rate for 1915, 13.5 per 1,000 population, is the lowest ever recorded, the most favorable year prior to 1915 having been 1914, for which the rate was 13.6. It is markedly lower than the average rate for the five-year period 1901 to 1905, which was 16.2. The decrease thus amounts to 16.7 per cent, or almost exactly one-sixth, during a little more than a decade. When due allowance is made for the addition of many new states to the registration area between 1905 and 1915, and the comparison is confined to the group of registration states as constituted during the period 1901-5—the present population of which is about one-fourth of the total for the country—there is still shown a very considerable decrease, from 15.9 to 14.3 per 1,000 population, or 10.1 per cent. This decrease, on the basis of the present population, would amount to 42,876 deaths. On the assumption that a corresponding reduction has taken place throughout the entire country, this would indicate a saving of approximately 170,000 lives in 1915 for the United States as a whole.

The annual report for 1915, to be issued later, will state that changes in the age and sex constitution of the population must be considered before the exact nature and extent of the lower general mortality can be understood. It is certain, however, that the great progress made during recent years in the sciences of medicine and sanitation, together with the widespread awakening of the people throughout the United States to the support of public health authorities, has resulted in the saving annually of scores of thousands of lives that would have been lost under the conditions prevailing only a few years ago.

DEPARTMENT OF NURSING

Through the kindness and courtesy of the managers of the State Medical Journal there will begin with this issue of the Journal, a nursing section to be conducted under the auspices of the Wisconsin State Nurses Association.

We wish to extend our thanks and sincere appreciation for this most generous offer which will afford us the opportunity for better understanding and closer co-operation in carrying on the organization work of the state.

The success of the venture will dependy largely upon the response and co-operation of the nurses from the various parts of the state where there are nursing activities. The Secretary of each affiliated Association should regularly send in items relating to the work and interests of her association, and papers read at County and Alumnae Meetings. Other contributors to the section of Personal and News Items should send only such news as would be of some note and would really interest the readers of the special locality from which they are sent. We feel sure that in each county there can be found a number of personal items that really mean something to the county association or the nurses of that county in case there is no organization. Such items will increase interest in your association, emphasize the educational and professional side of your work, and this broad outlook should be kept in mind when "writing up" for this department of the Journal.

It is our plan to give each month such personal and news items as come to our notice and seem to be of interest, announcements of meetings, reports of meetings, etc., and at least one article of educational value to nurses.

We are pleased to be able to present with our first appearance an address written by Miss Mary C. Wheeler, Supt. of the Illinois Training School and which was given at the last State Nurses' meeting at Madison.

We regret the scarcity of news from the different sections of the state but hope the subsequent issues will contain more wide-spread information relative to Wisconsin Nursing activities.

Any contributions either personal or relating to Association or Institutional work will be gratefully received and should be sent in time to reach the editor by the 5th of each month.

THE ESSENTIAL REQUIREMENTS OF SCHOOLS FOR NURSES.

BY MARY C. WHEELER, R. N.,

SUPT. ILLINOIS TRAINING SCHOOL,

CHICAGO, ILL.

Schools for Nurses, like almost all other growths of the human race, have been passing through an experimental stage. They have attempted to work out their own problems regardless of the success or failure of similar institutions, either not knowing or applying the reasons for such success or failure.

If more of the women, interested in training school matters, just had the time allowed them for research work in their own schools, doubtless the training of women, as nurses, would show wonderful progress within the next few years. Note some of the improvements, which have been made in the mechanical world by studies made for efficiency. Here many lessons have been learned by the study of time allowance for each part of the work, a study of cutting out useless motions and the thrifty use of materials. In other words, that there should be a definite relation between income and output and that blunders should be stopped.

It is impossible to expect to put nursing upon just such lines as mark the mechanical world. The conditions carry a sick body and a sick mind on one side of the problem instead of an inanimate object of the mechanician; there are many other human phases to deal with which need consideration; there is, also, much mechanical work to be done, over and over again, which could be studied and drilled into student nurses, so that a real pleasure could be gotten out of a finished piece of work.

Here and there, we are approaching our particular training school problems, but we are in need of some good clearing house for this definite training. We have many schools of nursing throughout our country but each of them carry the earmark of experimentation, not following basic principles and not co-operating.

In order to successfully carry on a school of nursing, there must be at least three parts of the problem for individual consideration, namely, the student body, the workshop and the teacher.

Let us first consider the student body. The problem of getting together a body of students for this particular work has been a serious one, espe-

cially in the last ten years. There are several general reasons for this difficulty and no superintendent of nurses should take the blame upon herself for not being able to satisfy the needs of her own school.

The Boards of Control of hospitals view the advantages of a student body, in preference to other methods of nursing in their institutions as follows:

a. That there is a distinct value to an institution caring for the sick, in having a group of young women enthusiastic in their work, physically firm and of good general appearance.

b. That by making a small financial allowance, and out of courtesy, calling this part of the work, a school, which has been established regardless of opportunity for the student or need in the community, that their sick can be cared for at a minimum expense to them.

c. That the cost of maintenance of this group is but little more, if any, than for a group of graduate or experienced nurses.

d. That because it is a school, the students are bound to come under such discipline, without question by them, as may be determined as necessary, by the authorities.

e. That being under discipline, they may be assigned to such an amount of private duty in the hospital as will meet a part of the expenses of the institution and in some instances be a source of income.

f. That, many times, students may be required to perform such duties as have no shadow of the care of the sick, because they are less expensive to the institution and are under their complete direction.

g. That the third year added to the course, has been useful in providing more expert care for their sick, with no more expense.

The students side of the school shows the following facts:

a. A young woman, meeting the requirements of age, education, health and moral character, and ambitions to be of use to others, to develop her own gifts or talents and to make an independent living is enabled to enter a school of nursing at a minimum financial expense, compared with other openings for women.

b. It gives her a special knowledge, which can be used at any time or place, with but small or even no expenditure of money by the establishment of her business.

c. She rightfully expects that the instruction in theory and practice will be commensurate with the time and effort expended during her training.

d. She rightfully expects that the institution will provide standard living conditions.

e. She rightfully expects that the institution which extends to her its diploma has such standing in the profession as will give her professional recognition.

f. She often finds, after giving her time and effort for some months that:

1. There is lack of system in the presentation of theory and practice.

2. That there is no method of receiving credits for work done in other lines of study.

3. That there is no other service planned for, even when merited.

4. That practical training in all departments is not arranged for.

5. That the matter of discipline is entirely arbitrary, often without consideration for her development.

6. That the living conditions are medium or poor.

7. That the third year has been added to the length of the course without additional plans for practical or theoretical experience.

8. That the diploma extended to her at the end of two or three years, may give her no standing in the profession.

The good school will recognize its defects and make attempts to right the matter, because it recognizes the fact that when interest and enthusiasm are entirely lacking, when the student only keeps in step to get her diploma, that the output is not what it should be. There is no better advertisement for your hospital and school than a satisfied, well developed nurse who is able to begin her independent professional life with efficiency and enthusiasm.

How to get students of the right type to come to our schoods is a problem. Their choice usually

rests upon the recommendation of a doctor, a nurse, a friend who has had some hospital experience or by hear-say.

The early selection of such probationers who may remain through the preliminary period, avoids waste, misfits in the profession and the education in nursing affairs to women who might use this knowledge indiscriminately. My experience prunes out from $\frac{1}{3}$ to $\frac{1}{2}$ of the women who enter the school as against those who finish.

Now that nurse legislation has cut out the rapid growth in the number of schools organized, we hope to be able to develop the schools we have and be able to do better team-work.

Closely following the problems of the student body is the problem of what is needed to be taught these students, both in practical and theoretical experience. It is not only necessary for the student to "Hear it. See it. Do it", but to hear it and think it over, see it and think it over and do it and again think it over.

We may call our hospital the workshop or laboratory. This is a necessary part of the training, namely, some place to constantly practice the use of their minds and bodies. Much of the success of a nurses' school depends upon the hospital buildings, the actual plans and the hygienic conditions.

Buildings poorly planned and in poor localities add days of sickness to the nursing staff, which though they may have an uncertain value, educationally, to the student, may be considered almost a waste of time and health. Mistakes in hospital plans are not only a source of waste on the nursing and household staffs, but are dangerous to the lives of delirious or mentally unstable patients. Blame for accidents due to faulty construction usually falls upon the nursing staff rather than where it belongs, either the Board of Control or the architect.

Closely allied to the hospital buildings, for the successful care of the patient, is the equipment of the hospital. Adequate equipment which furnishes each floor or ward, marked, replaced when necessary, does away with borrowing, doing without and friction, all of which impedes good work.

Many institutions start out well as to plans, proper locality and equipment but fatally fail in the choice of person who is to be in charge. No school can thrive where there is more than one person, as a court of last appeal, who stands between the student body and the Board of Control. It does not matter just what training this person has had but first she or he should have the ability of leadership. The school needs such a person as a manager, one who has business qualifications as to money affairs and to the management of workers and one who can look forward to possible demands, one who knows how to judiciously "oil".

This well planned, equipped and managed hospital, meaning almost everything in the successful care of the patient, needs to be supplemented by an efficient medical and nursing staff.

The nursing staff must be organized in accordance with the needs of the place. The number of nurses and supervisors should be in a definite ratio to the number of patients, regulated by the amount of waste space to cover, lack of equipment and efficient management and the demands of the medical and surgical staffs and the patients.

Experience should be extended to the students in the care of medical, surgical, gynaecological, obstetrical patients, in the care of the new-born and sick children, the practical feeding of children and adults, a limited amount of special duty and optional experience in the care of contagious and venereal cases.

The time allowed in each department should depend upon the length of term of training and also upon the number of departments open for the students. This will need be studied for each school and the more departments open and systematically arranged for, the better opportunity for the school to invite the properly qualified student body for entrance.

The hours of daily duty are partially governed by law but in a great measure by the traditions and necessities of each school. Schools should be able to regulate these hours in a sensible way and are liable to come to grief, eventually, if they do not do so. When legislation, at the instigation of a few abuses, sees fit to impose regulations as to "hours of work" upon student nurses in place of their sensing the situation as "being on duty", we will lose much of the real heart of caring for the sick. We should be able to standardize a reasonable day's service in relation to the theory presented and as before suggested, much could be done in this by time and motion studies. These studies would also busy the brains of our students to bring out new ideas in the care of our patients.

Closely allied to the practical experience must be the theoretical work. There are so many nurs-

ing topics to be presented that we should avoid medical topics just as far as possible. At present each State Board of Nurse Examiners makes its own minimum theoretical requirements and here, again, a central clearing house would be of great advantage in determining topics, required hours devoted to each topic, the grades required and kinds of permanent records. It would seem advisable that instruction by class, lecture and demonstration should be required in the care of medical, surgical, gynaecological and obstetrical patients, care of the new-born, sick children, contagious and venereal nursing and nursing ethics. Instruction by class, lecture and experimentation in the sciences, anatomy, physiology, hygiene, bacteriology, dietetics, materia medica, elementary urinalysis and some physics and chemistry when possible.

The last part of the problem to gain recognition has been that of the teacher. For many years, schools of nursing have expected the Superintendent of Nurses, with the assistance of some agreeable member of the medical staff, to present all of the theory to the student body. Boards of Control have not usually chosen their superintendent of nurses with the idea of being a leader, a teacher, an example, especially when she is to act in many other capacities than at the head of the school, as in the case in many, many medium sized hospitals, when as a graduate nurse she acts in rotation and sometimes duplication, as Superintendent of the hospital, Superintendent of the school for nurses, head-housekeeper, cashier, purchasing agent, bookkeeper, head surgical nurse, anaesthetist, hostess to guests of the institution. This leaves but little time for the satisfactory preparation and presentation of theory, especially as the first list of duties, absolutely need to be done and the instruction can slip along on promises for a while, at least.

Nurse schools are beginning to realize that this is poor business and although it often hurts Boards of Control to add a teacher to connect up the student with that which the student is in the service for, necessity is demanding it and the teacher is gradually being installed. This teacher only half meets the situation who fails to follow up her instruction in the actual care of the patient.

Besides these problems which are of importance and which are essential points for consideration in our problem of training women, as nurses, there are others, i. e., where and how are the students to live; what kind of discipline is to be practiced and what type of women is to be at the head and heart of the school?

The dwelling for the student body should be separate from the hospital proper, where the students may live as nearly a normal life as possible under this kind of work which is a strain upon all of their mental and physical being. There should be a standard of living in this residence which they absorb, so that they have some gauge to use in their later activities. There should be plans for play and relaxation, periods when they can, legitimately have good times. There should be careful consideration of food, as to amounts, quality and times for eating; of the cleanliness of the buildings and grounds; of the laundry; of all things which will not only keep them well, but will improve their general physical and mental condition.

For too long a time, the superintendents of nurses have failed to emphasize the positive and building-up side of discipline and have made the mistakes of the student a sin to shadow all of her future career, when by explanation and reason, the student will not only see the folly of her actions, but developes herself and others by getting another viewpoint of her actions. If the superintendent is unable to help the student develop her seeds of virtues and industry, then she herself fails in being the leader. This is not the easiest way for the superintendent, as it often costs her much in actual physical and mental strength, but she reaps her reward in seeing the student grow in strength of character. Of course, some mental attitudes may develop in the students in dangerous fashions and then quick, rapid action must be taken, but as a whole, the student body is a reasonable body. There is no need for the discipline of the school to shatter the ideals of womanliness and service to others with which the student entered; these may be and probably will be re-arranged in her view of life, but should be increased as a part of her equipment.

One of the crying needs of today, is that of more graduate nurses who are willing to fit themselves for the responsible positions of superintendents of schools of nursing. Nurses are occupying many fields of usefulness and they each reflect the tone and scope of their training. The success of our graduates is more nearly guaranteed when we have as our inspiration the capable, self-sacrificing, interested women at the heads of our schools.

NEWS ITEMS AND PERSONALS

THE ANNUAL MEETING.

The 7th Annual Meeting of the Wisconsin State Nurses' Association will be held in Milwaukee, Oct. 22nd to 24th, at the Nurses' Club House, 566 Van Buren St.

The program promises to be the most interesting one ever given in the history of the organization.

Some of the features of the program are, an informal reception on Sunday afternoon from three to five for Miss Jane A. Delano, Chairman National Committee Red Cross Nursing Service and an address by Miss Delano in the evening at 8 o'clock. Monday morning there will be addresses by Miss Powell, Supt. of Nurses, University Hospital, Univ. of Minn., and Gov. Phillip. Monday afternoon a paper on Community Nursing, by Miss Peterson of La Crosse and an address by Miss Delano. At the evening meeting a talk will be given by Dr. L. M. Warfield of Milwaukee. Tuesday morning, addresses by Miss Helen W. Kelly of the Chicago Health Department, and Mr. Wicks of the Westinghouse Lamp Factory of Milwaukee. The afternoon is to be devoted to reports, conference and election of officers and delegates. In the evening, an address on Heredity and Health by Prof. Mullenix, Lawrence College, Appleton.

Miss Stella Fuller has severed her connection with the Visiting Nurses' Association of Milwaukee to become Superintendent of Maple Crest Tuberculosis Sanatorium at Whitelaw, Wis.

Miss Alice Ashby of Indianapolis is at the Club House assisting Miss Stella Mathews, registrar.

Miss Marion D. Bell, until recently night supervisor of nurses at the Milwaukee County Hospital, has gone to Neenah, Wis. She is assistant superintendent of nurses in the Clark Memorial Hospital.

The University of Wisconsin Extension Department, located in Milwaukee, is giving its second course in public health nursing. The course covers three months and includes lectures, conferences and field work in public health nursing, factory inspection, hospital social service, etc. Miss Katherine Olmsted, Johns Hopkins Hospital and Supervising Nurse of the Anti-Tuberculosis Association, is director of the course.

Miss Cora V. Nifer, Asst. Supt. of Nurses and Instructor in Milwaukee County Hospital has been appointed a member of the Committee of Examiners for State Registration. This appointment was made to fill the vacancy caused by the resignation of Miss Florence Patterson.

The Milwaukee County Nurses' Association held its regular meeting at the Nurses' Club House, 566 Van Buren St., Milwaukee, Tuesday, October 10th. Dr. Jermain gave a most instructive talk on Health Insurance.

The Committee of Examiners for State Registration will hold an examination in Milwaukee on Oct. 17-18. This is an extra meeting of the committee for the convenience of the many nurses who have finished training since June.

Miss Mathild Krueger of Neenah is doing Rural Community Work in Dunn County in connection with the State University Extension Division Department of Domestic Economy. Her office is in the Dunn County School of Agriculture and Domestic Economy at Menominie, Wis.

St. Joseph's Hospital, Milwaukee, has adopted the eight-hour working day for its under-graduates. It has been in practice there for a month and found quite satisfactory.

Misses Olmsted and Leenhouts of the Anti-Tuberculosis Association and Miss Constance Hays of Kenosha attended the Mississippi Valley Tuberculosis Conference held in Louisville, Ky., early in October.

Theodore Schroeder of the Y. M. C. A. of Milwaukee will give a stereopticon talk to the nurses on Saturday, Nov. 4th, at the Nurses' Club. Mr. Schroeder spent nine months in the prison camps of Austria and his experiences will furnish the matter for his talk. Admission, 25 cents.

Miss Mary Lent, Asst. Executive Secretary of the National Public Health Organization, has been in California reorganizing public health work. Miss Lent on her return to the East in January will stop in Milwaukee for a short time. While here she will talk to public health nurses and any others interested in the work. The date of the talk will be published later, the place will be the Nurses' Club House.

The death of Mrs. Alvira J. Haswell, after an illness of more than a year, occurred on Thursday, Sept. 21, at her home in Windsor. Mrs. Haswell was the mother of Miss Anna J. Haswell a charter member of the State Association and officer of the association ever since its organization. Nurses throughout the state extend their sympathy to Miss Haswell in her bereavement.

TRAUMATIC CANCER. Another interesting cancer case has been on trial, and on October 19, in the New York Supreme Court, a jury rendered a verdict of $7,000 damages. The suit was brought by a child's nurse against the 13-year old son of an architect of New York City, on the ground that in 1910, when he was ten years old, he had struck her in the breast, and, in consequence of the blow, cancer, necessitating a serious operation, had resulted. A curious feature of the judgment is that it does not involve the parents of the boy, but only himself; and as he is not personally possessed of any property, it cannot now be enforced. It is stated, however, that if while still a minor he should inherit or otherwise come into the possession of property, the $7,000 could be collected; while if he has nothing till he begins to earn a living, what he earns can then be attached.—*Jour. Iowa State Medical Society*, July, 1916.

The Wisconsin Medical Journal

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ORIGINAL ARTICLES

ANNUAL ADDRESS IN SURGERY.

THE OPERATION OF CRANIAL DECOMPRESSION FOR CERTAIN INTRA-CRANIAL CONDITIONS.*

BY WILLIAM SHARPE, M. D.,

NEW YORK.

The field of neurological surgery has so broadened during the past few years, that not only has it extended beyond the realm of general surgery, but it is itself becoming rapidly subdivided into more highly specialized fields of surgery. Unless a surgeon is performing neurological operations frequently—at least twice a week—it is impossible for him and his assistants to develop the requisite technique and team-work so essential in obtaining good results; there are few operations in surgery requiring so much patience and lack of dramatics as neurological operations. As Dr. Harvey Cushing has well observed unless a surgeon can afford to give up the entire morning or afternoon to the one operation, then it is wiser not to perform the operation. Neurological operations should not and cannot be hurriedly done.

The great stumbling block in neurological surgery in the past has been the lack of team-work between the surgeon and the neurologist at his side; the surgeon knew little if any neurology, and the neurologist knew little if any surgery. It is absolutely essential for the surgeon to have a practical knowledge of neurology; Dr. Allen Starr realized this a number of years ago, so that in many cases he really performed the operation himself except the actual handling of the instruments. Those operators who were not so fortunate to have a competent neurologist by their side groped along and frequently much damage was done; if the patient cannot be benefitted by an operation, by no means make him worse by the operation, as the condition itself frequently is most pitiful.

As the knowledge of localization becomes more and more accurate, the surgeon is enabled to attack many lesions of the nervous system with comparative safety; this is due chiefly to the improved technique, careful hemostasis and better team-work.

If neurological surgery consisted chiefly of the removal of brain tumors, it would be indeed a most discouraging field of endeavor. Tumors of the brain are not only malignant in the vast majority of cases, but the diagnosis and accurate localization of cerebral tumors are often so delayed that the patients are frequently permanently impaired even after a surgically successful removal of the tumor; in addition to the mental and physical impairment, the danger of a secondary optic atrophy with the varying degrees of impaired vision and even blindness, is a very common result of the prolonged increase of the general intracranial pressure. Naturally, the earlier a definite diagnosis of the tumor is made, the better the prognosis; with the improved surgical technique and plan of attack in these cases, the operative mortality is low; when death does occur after operation, it is usually due to an attempt to do too much rather than perform a second stage operation at a later date. Besides these removable tumors of the brain, there are the so-called inaccessible tumors, situated at the base of the mid-brain; the pioneer work of Dr. Cushing in attacking the hypophyseal tumors by the sub-labial, septal and trans-sphenoidal route is most brilliant; it is limited, however, to cases of primary pituitary tumor affecting the overlying optic chiasm and thus producing a primary optic atrophy; tumors of the mid-brain, which are much more common, cannot be approached by this method and it is rare that they can be removed by any method now known; to offset their pressure effects and thus delay the secondary optic atrophy is the most that can be hoped for in many cases.

There are few operations in surgery having the wide application and immediate beneficial results as the cranial decompression, and particularly the

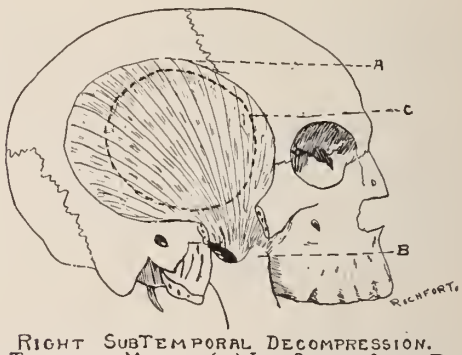
*Delivered at the 70th annual meeting of the Wisconsin State Medical Society, Madison, Oct. 4-6, 1916.

sub-temporal method. It is an operation that has been very much neglected in the past and one that is capable of still greater usefulness in the future. It is a comparatively simple operation, requiring no special technique other than a thorough knowledge of the anatomy of the temporal region and the avoidance of operative complications; if, however, difficulties are encountered, then the use of the best methods for controlling them. Naturally, careful hemostasis is a most important factor in obtaining good results in all cranial operations; due respect and regard for the delicate nerve cells of the cerebral cortex by the avoidance of unnecessary and rough manipulation and digital examination of it; and, of the greatest importance, a most strict asepsis.

Cranial decompressions have been limited in the past chiefly to the relief of intracranial pressure in cases of unlocalized cerebral tumor, and in cases of fracture of the skull showing signs of medullary compression; the operation was performed not only to lessen the danger of a medullary edema, but to avoid a secondary optic atrophy so commonly observed in tumors of the brain; in these latter cases, the site of the decompression was most frequently over the parietal area, or the upper temporal region, and thus, as the tumor enlarged, the increasing intracranial pressure forced the underlying cerebral tissue through the bony opening producing herniae cerebri of tremendous sizes—the bane of cranial surgery; fungi cerebri were also common results of such protrusions. Not only was this complication to be feared, but the operative danger to the underlying motor area with resulting paralysis of the opposite side of the body was always risked; besides, the intracranial pressure in fractures of the skull, as well as in tumor formations, frequently produced a motor impairment by forcing the motor area upwards through the bony ring of the decompression.

The reason for these complications is obvious. To remove an area of either parietal bone, not only may the underlying motor cortex be impaired at the time of the operation, but also subsequently by its protrusion upwards through the bony opening; this is made possible by the extremely weak protection afforded by the scalp overlying the parietal bone; besides the cutaneous tissues in this area, there is only the epicranial aponeurosis, so that even a moderate degree of intracranial pressure is sufficient to cause a hernial protrusion. If the decompression is performed in the lower parietal area, then the cranial origin of the temporal muscle to the parietal crest must be destroyed and thus the possible protection of the temporal muscle is lost.

In contrast to these methods of cranial decompression, the sub-temporal route offers an almost ideal operation for intracranial conditions requiring either a relief of the increased pressure or an exploratory procedure; not only is the underlying cortex here a part of the tempero-sphenoidal lobe (which is a comparatively "silent" area of the brain), but the removal of the squamous bone is technically less difficult in that it is the thinnest part of the vault of the skull. Again the decompression opening is amply protected by the overlying temporal muscle, so that it is a very rare occurrence to have a hernia cerebri following this



RIGHT SUBTEMPORAL DECOMPRESSION.
I THE TEMPORAL MUSCLE, (A) ITS ORIGIN ALONG THE PARIETAL CREST AND ITS ATTACHMENT TO THE CORONOID PROCESS (B).
THE DOTTED LINES, C, SHOW THE EXTENT OF THE DECOMPRESSION OPENING (2½" x 3"), PROTECTED BY THE OVERLYING TEMPORAL MUSCLE.
THE DIRECTION OF THE FIBRES SHOWS HOW EASY IT IS TO SEPARATE THEM LONGITUDINALLY.

Fig. I.

method of cranial decompression; if the attachment of the temporal muscle to the parietal crest is carefully preserved, then it is practically impossible for a marked protrusion to occur. In my opinion, this method of decompression should be the one always to be employed. In sub-tentorial lesions affecting the cerebellum, naturally a sub-occipital decompression is to be preferred; especially is this true of tumor and abscess formations in it. As the tentorium strongly separates the cerebellum, any increase of the sub-tentorial pressure is more effectively relieved by a sub-occipital decompression than by a supra-tentorial operation; besides, not only may the lesion be removed at the same time, but the bony opening will be protected by the thick layer of occipital muscles, and thus a large hernia be prevented.

The purpose of the sub-temopral decompression has been very much enlarged during the past few years, and it seems that its usefulness is to be developed still more in the future. Although its chief function is the relief of intracranial pressure, yet it is a most valuable method of exploration. In these two divisions, practically all of the intracranial conditions for which the operation may be advisable, can be classified, and the following is a brief consideration of them:

First: The relief of intracranial pressure.

A. *Tumors of the Brain.*

I. Localized tumors of the brain.

a. *Large cerebral tumors.* For fear the cerebral cortex would be much more extensively damaged by opening the skull directly over the tumor, it is frequently advisable in cases of high intracranial pressure, first, to make a sub-temporal decompression on the side of the head opposite to the tumor and then perform the osteoplastic "flap" operation to remove the tumor. In this manner, not only may the tumor be enucleated with little impairment of the surrounding cortex, but in cases where the tumor is not found as localizel clinically (an occurrence of only too great frequency), then, the brain may be "dislocated", as it were, towards the opposite side of the head, as is made possible by the decompression opening on that side, and in this manner, an exploration can be conducted with but little or no injury to the surrounding cortex. This is a most important function of the decompression in facilitating the removal of large cerebral tumors; within the past year, I have removed large cerebral tumors in three cases by this method, and I am confident the operation would have ended fatally if this procedure had not been used.

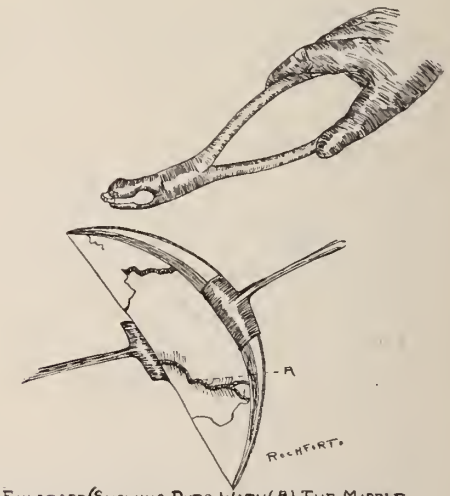
b. *Irremovable tumors of the base of the midbrain.* Frequently, the tumors are non-malignant, the most common one being the tuberculoma; my series contains seven of them. It is of the greatest importance to prevent secondary optic atrophy and its resulting blindness by an early relief of the intracranial pressure. These tumors may enlarge to a certain size, then remain stationary, become smaller and even disappear clinically, so that if blindness is prevented during their stage of active growth, than an excellent result may be obtained. If the tumor should continue to grow, then the headaches and blindness may be delayed for months until the last stage of the condition.

II. *Unlocalized tumors.* In the hope that the tumor may localize itself clinically and thus permit of its removal, and yet to prevent the secondary optic atrophy resulting from the increased pressure of its growth, it is advisable to perform an early decompression, and if necessary, a bilateral decompression. During the past year, I have treated six cases in this manner; it is surprising to observe the improvement in such cases—a cessation of headache, nausea and vomiting, the rapid subsidence of the beginning "choked disc"—the forerunner of secondary optic atrophy and blindness. No case of high intracranial pressure producing "choked discs" should be permitted to remain weeks while a definite diagnosis is being made without a relief of that pressure by a decompression; only too frequently such cases are brought to the surgeon after blindness has occurred, and once an advanced degree of secondary optic atrophy has supervened, there is little, if any recovery of sight. Not only will an early decompression delay and even prevent blindness in these cases, but it will prolong the life of the patient by lessening the medullary compression, and thus the unlocalizable tumor may extend into a part of the brain producing unmistakable signs of its situation, so that the tumor can be successfully removed. This is the common history of tumors of the frontal and temporo-sphenoidal lobes, especially of the right cerebral hemisphere; as tumors of the frontal lobe extend posteriorly to the motor area, then a motor impairment of the opposite side of the body appears, and if downwards upon the optic nerve, then an ipsolateral primary optic atrophy may result; a motor aphasia frequently appears as tumors of the left frontal lobe extend backward into the motor speech area; in tumors of the temporo-sphenoidal lobes, a similar tumor impairment occurs if the lesion extends upward into the motor tracts.

In similar cases of suspected tumors of the frontal or parietal lobes and if the intracranial pressure is not extremely high, it is advisable to perform an osteoplastic "flap" operation first, and if the tumor is not found, or after its removal, the brain is still under marked tension, then a subtemporal decompression can be performed by rongeuring away the squamous portion of the temporal bone and the lower portion of the bone flap

itself; in this manner another scalp incision is avoided.

B. *Fractures of the skull.* Whether the fracture is of the vault or of the base, a decompression is advisable only when the fracture is associated with high intracranial pressure: naturally, the palliative expectant treatment of absolute rest and quiet, ice-helmet to the head, catharsis and liquid diet is usually sufficient for those cases of fracture of the skull showing no marked signs of intracranial pressure; that is, a fracture of the skull is not an indication for an operation unless there are definite signs of an increase in the intracranial pressure. An ophthalmoscopic examination of the fundi of the eyes and the measurement of the pressure of the cerebro-spinal fluid at lumbar puncture are the most reliable and accurate means of determining an increase of the intracranial pressure, whether this increase is due to a swollen edematous brain, a depressed fracture of the vault, or to an intracranial hemorrhage—one of extra-dural, subdural or intra-cerebral hemorrhage with cerebral lacerations. It is not so essential to remove the depressed area of bone or the intracranial blood clot as it is to offset the pressure effects of the depression or clot upon the cerebral cortex; naturally, in depressed fractures of the vault, the depressed area should always be elevated or even rongeured away, and in cases of intracranial hemorrhage, the clot should be removed, but in many cases, even when their removal is possible, the intracranial pressure still remains high, and it is this continued increase of intracranial pressure which damages the cerebral cortex and produces the impairment, both physical and mental. It is not so much a question of fracture of the skull as the effects upon the brain of the injury producing the fracture; in many cases, a fracture of the skull is not present and yet a cortical hemorrhage and even cerebral laceration may have resulted from the injury. It is in these cases of intracranial lesions resulting from injuries to the head and showing definite signs of increased intracranial pressure that an early relief of this pressure is advisable—not only to avoid the danger of a medullary compression and its possible collapse by edema and therefore the death of the patient, but to lessen the percentage of the post-traumatic conditions so common in these cases, such as persistent headaches, dizziness, changed personalities varying from the depressed state to a highly irritable condition, general nervous instability and even epilepsy in its different forms. A decompression should only be advised when there are marked signs of intracranial pressure as revealed by the ophthalmoscope and confirmed by the measurement of the cerebro-spinal fluid at lumbar puncture; signs of medullary compression, such as a very slow pulse, a slow and irregular respiration of the Cheyne-Stokes type and a high blood-pressure are rather late signs of intracranial pressure, and if the patient is allowed to reach this dangerous condition, then it is doubtful if the patient will recover—operation or no operation; a medullary edema and collapse of the patient may occur at any moment.



Opening Enlarged (Showing Dura With (A) The Middle Meningeal Artery Crossing The Field Of Operation) By Larger Rongeurs, Having One Blade Flatter So That It Can Easily Be Inserted Between Dura And Bone Without Tearing The Dura.

Fig. II.

C. *Fractures of the Vault.*

a. *Linear fractures with no depression of the fragments.* In these cases, a decompression should be performed if the intracranial pressure is high. It has been rare in my experience for fractures of the vault, unless small locally depressed ones, to be limited to the vault alone; usually the "crack" extends downwards to the base—the thinnest and weakest part of the skull. However, this type of fracture as revealed by the X-ray, frequently shows no signs of intracranial pressure and therefore an operation should not be considered.

b. *Depressed fractures of the Vault* should always be elevated and if this is possible, then it is usually wiser to remove the depressed fragments, whether the intracranial pressure is high or not.

The danger of local damage to the underlying cortex with the subsequent formation of adhesions, etc., rendering the cerebral cortex unstable and thus subjecting the patient to the frightful risk of epilepsy, is a calamity always to be feared and especially in depressed fractures of the vault. If the intracranial pressure is high, then it is wiser to perform a sub-temporal decompression on the same side of the head as the depressed area, and in this manner the general intracranial pressure is relieved. If the depressed area overlies either motor tract of the cerebral cortex and the intracranial pressure is very high causing a double papilledema, then it is advisable to perform the sub-temporal decompression first and thus relieve the pressure, so that there will be less danger of injury to the motor tract when the depressed area is elevated or removed; otherwise, the intracranial pressure may be so extreme as to force cerebral tissue through the fractured opening of the vault and a motor impairment of the other side of the body result.

D. *Fractures of the Base of the Skull.* These cases can be usually treated by the expectant, palliative method; however, if the signs of high intracranial pressure appear, then an early decompression will not only save a large percentage of patients, but it will lesson the number of post-traumatic conditions.

In this connection it may be interesting to note that of the total number of 159 adult patients having fractures of the base of the skull which were examined and treated by me during the past three years until Jan. 1st, 1916, only 40 of them were operated upon, that is only 25 per cent; the total number of deaths were 35—26 without operation and nine following operation; that is, a total mortality of 22 per cent. Of these 35 cases, however, 20 of them were moribund upon admission—eleven of them dying within a few minutes to two hours after admission, and the remaining nine dying within six to twelve hours after admission. Forty cases of the 159 examined were operated upon with a mortality of 9 cases following operation, that is, an operative mortality of 23 per cent; of these nine cases, however, four of them revealed subtentorial fractures with hemorrhage—the most dangerous condition, as it causes direct pressure upon the medulla; two died, nine and sixteen days respectively following the operation, from meningitis due to infected hematoma of the scalp; one died on the twelfth day post-operative from pneumonia—the patient was seventy-five years of age—and the ninth case died in the sixth day post-operative from a meningitis—probably due to a "slip" in the operative technique. Naturally, the cases operated upon were the severe cases showing signs of high intracranial pressure; it is a mistake, however to operate upon these cases when in a condition of severe shock with a pulse rate over 120, and it is much wiser to wait several hours until the shock has been overcome; otherwise, the operation is but an added shock and will merely hasten the exitus.

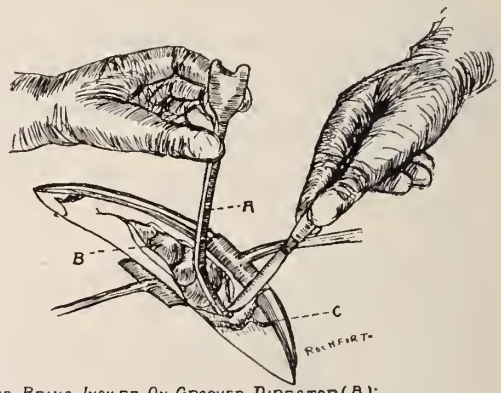
E. *Brain abscess, particularly of either temporo-sphenoidal lobe.* The accurate diagnosis of brain abscess is a most difficult one, and any operative procedure should always be conducted as an exploratory operation. As a rule, abscess of the cerebellum is diagnosed with less difficulty than abscess of either temporo-sphenoidal lobe or of either frontal lobe; therefore, if an abscess of the cerebellum can be excluded in a case with the history of previous otitis media, it is much wiser to perform a sub-temporal decompression over the suspected temporo-sphenoidal lobe and thus be enabled not only to relieve the intracranial pressure (if present) due to the abscess, but to permit a careful exploration of the entire temporo-sphenoidal lobe through a non-infected area; if the abscess is found, then free drainage is afforded through the lower angle of the split temporal muscle and the decompression will offset the pressure effects of the swollen edematous brain resulting from the exploratory punctures and the presence of the abscess; again, a meningitis is much less liable to occur with free drainage and lowered intracranial pressure than if the intracranial pressure were high so that the resistance of the tissues is lessened to an infected meningo-encephalitis; if the abscess should not be found, then a relief of the intracranial pressure has been obtained and no harm done, and the abscess may localize itself later. It is a most dangerous procedure to puncture the dura blindly, or open it through an infected area such as the mastoid; if the abscess is not found, the danger of infection is very great indeed, and if it is found, the resulting cerebral edema cannot be lessened by the small operative opening, so that the danger of a medullary compression is a serious

menace; in my opinion, patients die not so much from the presence of the abscess, but rather from the cerebral edema with its resulting medullary compression.

Within the past year, I have operated upon two cases of abscess situated in the anterior median portion of the left temporo-sphenoidal lobe, and if I had not used the subtemporal decompression I am confident I should have overlooked them. Again, in cases of suspected brain abscess, it is much better judgment to perform an early exploratory operation than to wait until the patient shows marked signs of medullary compression. The danger of the abscess rupturing into either the sub-dural space or the ventricle is then very great indeed.

My own series of operated cases of brain abscess is limited to seventeen. Of these seven died; three from medullary edema resulting from a too small opening of the occiput in cerebellar abscess; two from a meningitis following the drainage of a left frontal abscess through a small opening—no decompression having been performed; and two died from a large temporo-sphenoidal abscess—three to three and one-half inches in diameter—which gnawed their way into the ventricle after a decompression with free drainage had been established. The remaining ten cases recovered; seven were situated in the temporo-sphenoidal lobes following otitis media and each one was drained through a sub-temporal decompression; two were cerebellar and one a right frontal abscess—the latter case having a decompression performed until the abscess located itself clinically seven weeks later.

F. *Selected cases of cerebral spastic paralysis* due to an intracranial hemorrhage at birth. Attention has been centered in the past upon the correction of deformities and the lessening of the spasticity; the improvement following these operations has been only temporary in all but the very mild cases. Naturally, the cases of spastic paralysis due to a lack of development or malformation of the brain and its pyramidal tracts, and the ones due to a meningitis, are not operated upon and could not be benefitted by any cranial operation, but the cases of cerebral spastic paralysis having a history of difficult labor with or without instruments, and upon ophthalmoscopic examination of the fundi, the definite signs of intracranial pressure are to be observed in the dilated retinal veins, edematous blurring and haziness of the nasal halves of the optic discs and the more marked signs of old intracranial pressure and confirmed by the measurement of the pressure of the cerebro-spinal fluid at lumbar puncture—these are the cases that can be very much improved by merely a relief of intracranial pressure; the local pressure effects of a hemorrhage or of its resulting cystic formation are offset by the decompression, and if the intracranial pressure is very high, then a bilateral decompression may be performed. If the hemorrhagic clot, or its subsequent cyst, can be removed, so much the better, but this is not possible in many cases. Naturally, the longer the clot and its cystic formation are allowed to exert pressure upon the



Dura Being Incised On Grooved Director (A); Cortex Of Brain Exposed (B); Incision Approaching Middle Meningeal Artery (C) Which Is To Be Ligated.

Fig. III.

cortex, the more impaired do the nerve cells of the cortex become; in my series of 229 operated cases until May 1, 1916, only 10 of them revealed the hemorrhagic cyst in or beneath the cortex; that is, the cortical nerve cells were not primarily destroyed but merely impaired by the pressure of the clot and its cyst upon them, as was the condition in 149 cases as observed at the operation; thus, the longer the condition of intracranial pressure is allowed to continue, just so much more will be the impairment of the cortical nerve cells, resulting in a persistent and even increasing stiffness and spasticity, and a steady mental deterioration in the majority of cases. Most of my cases have been from five to eight years of age, the youngest 2 days and the oldest 21 years of age; the older the patient above 12 years of age, the less was the improvement, but even the older ones are improving. The operative mortality has been 18 cases; 9 of these, however, were extreme cases of spastic diplegia under two years of age, very much emaciated, and

having great difficulty to breathe or to swallow; this type of case should not be operated upon as the anaesthetization alone is too great a risk. However, no case of spastic paralysis, no matter how extreme should ever be operated upon unless there are definite signs of intracranial pressure as shown by a careful opthalmoscopic examination and the measurement of the pressure of the cerebro-spinal fluid at lumbar puncture; in this manner, the spastic cases due to a lack of development and malformation of the brain and its tracts and the spastic conditions following a meningitis and meningo-encaphalitis are easily excluded and should never be operated upon as their condition could not possibly be improved by a cranial operation. Naturally, sufficient time has not yet elapsed since the first operation in June, 1913, to establish the permanency of the improvement in these selected cases of spastic paralysis; it may be only temporary; but from pathology of the condition we see no reason why the children should not continue to improve as they are doing.

Second: As an exploratory procedure. This is particularly true of suspected lesions of either temporo-sphenoidal lobe, the lower portion of either motor area, the posterior lower portion of either frontal lobe and the motor speech areas. It is a much more simple operation technically than the osteoplastic "flap" operation, requiring half the time, and the bony opening can be firmly covered by the temporal muscle so that no deformity results. Again, if an increase of the intracranial pressure is found at operation, then the decompression will relieve it.

Not only will a decompression itself relieve the increased pressure, but a tapping of the lateral ventricle may be easily performed through the decompression opening by means of a small blunt puncture needle, and in this manner the presence or the absence of a dilatation of the ventricles is ascertained—a most important aid in the diagnosis of the location of the intracranial lesion; besides, the ventricular tapping will greatly relieve the intracranial pressure—at least temporarily.

Besides the cranial conditions mentioned above as being benefitted by the operation of sub-temporal decompression, there are intracranial lesions for which the decompression may be used, but this work is now only in its experimental stage.

The technique of the Sub-temporal Decompression. The usual preparation of the patient for an operation. The side of the head selected for operation is carefully shaved—either the preceding night and a green soap poultice applied or in emergency cases, the operative site is closely shaved just before the operation. Unless there are clinical signs indicating a lesion of the left hemisphere, the decompression is always performed on the right side in order to avoid the motor speech area which is situated in right-handed persons in the posterior portion of the third left frontal convolution, and vice versa in left-handed patients. The patient is placed upon his back with his right shoulder elevated by a sand-bag so that the right side of the head can be more easily made parallel to the head of the table; in this manner, the operative site is well exposed and it does not compel the operator, who stands at the head of the table, and his assistants to assume tiring positions. The anesthetist is seated under a sheet at the waist of the patient and in this way he is entirely excluded from the field of operation. The anesthesia in these cases requires the most skillful administration; especially is this true to avoid an extreme cyanosis and congestion during the induction of narcosis, but after the dura has been incised and the cerebral cortex is exposed. Coughing or even labored respiration at this stage of the operation may result disastrously by forcing the cortex through the bony opening—the cortex may be ruptured and serious hemorrhage occur. Dr. Chas. S. Hunt who has administered the anesthetic in all of my cases used a mixture of ether and oxygen most successfully; he has found it necessary to deepen the narcosis just before the dura is incised—otherwise the sudden relief of intracranial pressure will allow the patient to show signs of consciousness, coughing, etc., a complication to be feared greatly at this stage of the operation.

The side of the head and face are now carefully "scrubbed" with green soap and water for five minutes, and then alcohol (70%) is sponged over the operative area. Iodine is only used in emergency cases when the scalp cannot be thoroughly prepared; it tends to irritate the skin in many cases and thus render a secondary infection possible. A superficial incision in the skin is now made to indicate the area of the operation and then towels wet in a 1-3000 solution of bi-chloride are clipped to the scalp at each side of this incision; in this manner the head is completely covered and the

towels cannot become disarranged so that there is little danger of infection.

By using the method of manual pressure at each side of the incision and the fore-finger of the assistant to compress the temporal artery as it passes over the zygoma, the incision can be made with very little loss of blood—a most important factor in all cranial operations; a cranial tourniquet cannot be used in this operation and the other methods for controlling hemorrhage of the scalp such as suturing the scalp, clipping of the scalp, etc., are not only time-consuming, troublesome, and even dangerous by increasing the risk of infection, but they are ineffective in many cases.

The incision is made vertically upwards through the scalp from a point just above the zygoma and one-half of an inch anterior to the external auditory meatus, to the middle of the parietal crest and thus overlying the origin of the temporal muscle; it is about three to three and one-half inches in length, and is parallel to the fibres of the underlying temporal muscle. Small curved haemostats are used to compress the branches of the temporal artery and then the temporal fascia is incised vertically and the fibres of the temporal muscle are split longitudinally and retracted, exposing the squamous portion of the temporal bone. A sharp periosteal elevator is used to separate the muscle from the underlying bone; great care should be taken not to destroy the attachment of the muscle and its fascia to the parietal crest; otherwise, the closure of the temporal muscle will be greatly weakened.

The Doyen perforator and burr are now employed to make a small opening at the lower angle of the operative area, that is, the thinnest portion of the squamous bone. Small rongeurs enlarge the opening until it is possible to use a larger rongeur having one blade bevelled and flattened so that it can be easily inserted between the dura and bone; frequent explorations and removal of adhesions between dura and bone with the dural separator will prevent the dura from being torn. In this manner, a circular opening as large as possible under the temporal muscle is made, extending from the base of the skull up to the parietal crest and having a diameter of two and one-half to three inches.

Before opening the dura, it is very important that all oozing from the bony margins should be stopped; the best method for controlling this bleeding from the diploe and its sinuses is the rubbing of a bone-wax into the edge of the bond and it is surprising how quickly this troublesome complication is overcome. Dr. Norman Sharpe has formulated a bone-wax which is most effective; its composition is as follows:

White Wax	7 parts
Almond Oil	2 parts
Salicylic Acid	1 part

Keep in a 5 per cent solution of carbolic acid. This wax may be sterilized before each operation, and then allowed to cool so that it hardens and is easily moulded; small pellets, the size of peas are then applied to the oozing bone. It is a most

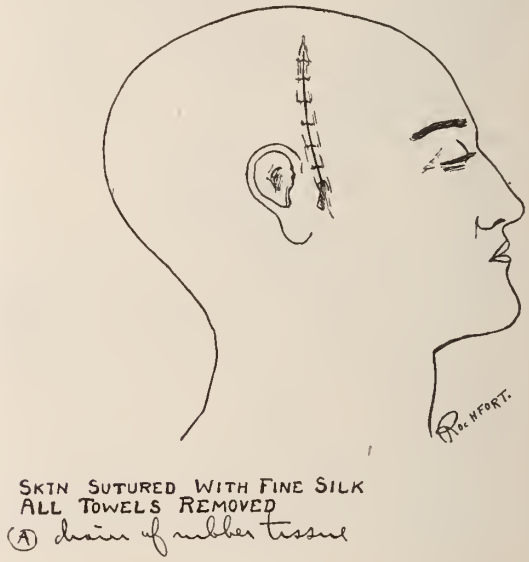


Fig. IV.

effective method of plugging the middle meningeal artery when it channels the bone; it seems to me that it might be used in operations upon bone elsewhere, such as the mastoid, resections of bone, etc. It is far superior to the old method of using wooden pegs in cranial surgery. In fractures of the skull, the middle meningeal artery is frequently torn as it channels the temporal bone, so that it is a very simple matter to eradicate the clot and then plug the bleeding point with the wax.

The dura is now incised by carefully cutting through its outer layer first with a sharp knife, and then elevating the dura from the underlying cortex by means of the small dural hook inserted into its outer layer, the inner layer can be safely incised until a small pin-point opening is made; a

grooved director bent at right angles may now be carefully inserted and the dural opening enlarged by cutting the dura upon the director. When the dural incision is one inch in length I have found it easier and quicker to insert a spoon-shaped spatula beneath the dura and then to cut the dura with a sharp pair of scissors; this method is not only safer, but it allows the incision to approach the dural vessels as closely as possible so that these vessels may be clamped before being cut. Not only is it time-consuming and troublesome to ligate the dural vessels with silk or cat-gut, but it is dangerous to insert a needle beneath the vessels before the dura has been incised for fear of puncturing one of the many cortical vessels lying beneath and thus complicating the operation very much indeed; if the decompression is to be performed, it should at least not injure the brain. An excellent method of dealing with the dural vessels is the application of small silver V-shaped clips to them and then the dura and its vessel may be safely cut between each pair of clips and no bleeding result; these clips may be left upon the vessels, and I have never seen any ill effects occur; in three cases at autopsy within two years after operation, the clips were found in *situ;* no tissue reaction had occurred so that they are apparently not irritating foreign bodies; in some cases where the dura was very vascular, I have used as many as eight clips. The clips are made by snugly wrapping German silver wire No. 24 around a rectangular rod and then bi-secting the rolls; V-shaped clips are thus formed and after sterilization these can be put in a clip holder (similar to a haemostat with a grooved end) and slipped upon the dural vessel. This method saves much time and entails no risks.

The dural opening is thus enlarged in a crucial or stellate manner until the bony margins of the decompression are reached. It is very important to incise the dura downwards to the very base of the skull so that the middle fossa of the skull can be easily and freely drained—so essential in all fractures of the skull with edematous, swollen brains with or without hemorrhage. Through this opening, any underlying pathological lesion can be dealt with freely and safely; subdural clots may be removed in fractures of the skull; small tumors and abscesses drained. Aided by the spoon-shaped spatula and a good electric head-light, the neighboring areas of the frontal lobe, the parietal lobe and the posterior portion of the temporal lobe may be accurately explored for any cortical lesion. If the cerebral tension is very high, then the ipsolateral ventricle may be drained by the ventricle puncture needle; all parts of the temporo-sphenoidal lobe and even the posterior portion of the frontal lobe and the lower portion of the parietal lobe can be accurately explored in the same manner, as in cases of suspected abscess.

After the cerebral lesion has been removed or drained, or if merely the relief of intracranial pressure is desired, then a rubber tissue drain of one-quarter of an inch in width and several layers in thickness is inserted at the lower angle of the wound and inside the dura beneath the temporo-sphenoidal lobe as far as possible; in this manner, excellent drainage is afforded the middle cranial fossa. Before the closure of the opening, it is important that there should not remain any bleeding points, no matter how small; small cotton pledgets wet in warm saline solution are frequently sufficient in many cases of cortical oozing. or small pieces of the temporal muscle applied to the bleeding point and then compressed for a few seconds will stop a most troublesome oozing. When tumors are removed, then packs of cotton wet in warm saline solution and pressed into the cavity of the enucleated tumor mass will quickly prevent a large hemorrhage; it is rarely necessary to leave in intracranial packing.

The drain having been inserted beneath the temporo-sphenoidal lobe, the temporal muscle is now sutured together with interrupted fine black silk, usually in two layers; then the temporal fascia, and finally the sub-cutaneous tissues; the vessels of the scalp are not ligated as the mere suturing of the sub-cutaneous tissue is sufficient to compress their vessels; at times, the temporal artery is separately ligated. The skin is carefully approximated by fine black silk. Dry gauze pads are now applied to the operative area, and after a cotton pad well covered with sterile vaseline is placed behind the lobe of the ear to prevent its being pressed against the skull and causing severe pain, the usual bandage of rolled gauze is used and held in place by several strips of adhesive plaster.

In operations of sub-temporal decompression, the dura opening is never sutured together; in the first place, if there is much intradural pressure, it would be impossible to approximate its edges, and secondly, to resuture the dura would be to destroy the object of the decompression—the relief

of intracranial pressure; for in adults, the dura is inelastic, so that there can be no real decompression if the dura is unopened or resutured after being opened. There is no danger apparently in leaving the dura opened; adhesions do not form, as revealed in three cases at autopsy, and in two of them a new dura was present; the overlying temporal muscle forms a safe protecting covering.

The advantage of the sub-temporal route over other methods of cranial decompression is chiefly due to its anatomical relations. Not only is the squamous bone underlying the temporal muscle the thinnest part of the vault of the skull and therefore less difficult to remove, but it exposes a part of the brain most frequently involved in cases of fracture of the skull where the middle meningeal artery is torn or the temporo-sphenoidal lobe is lacerated, and in cases of abscess of the temporo-sphenoidal lobe following its usual cause—an otitis media; with little difficulty, the lower portion of the motor tract may be explored as well as the posterior portion of the frontal lobe, and on the left side the motor speech area is easily observed. Another important advantage is the fact that the part of the brain lying directly beneath the decompression opening is the cortex of the temporo-sphenoidal lobe—a comparatively silent area of the brain; for this reason, any possible operative damage is not revealed clinically, and in cases of high intracranial pressure, the protrusion of this part of the brain into the decompression opening does not produce paralyses, etc.—a frightful result of decompressions at times performed over the parietal bones. That is, a sub-temporal decompression relieves increased intracranial pressure without cerebral impairment. Besides it affords excellent drainage for the middle fossa of the skull at its lowest point—a very important consideration in cases of fracture of the skull.

Again, the thick overlying temporal muscle not only makes possible a firm closure but also allows the underlying bone to be removed so that a permanent decompression results with no danger of a hernia cerebri. The scalp is not weakened by draining through the split temporal muscle and no unsightly protrusion occurs; the scar is always inside the hair-line. Besides, in men, the rim of the derby or straw hat affords some protection to the area of the decompression although no protection is really necessary, as the temporal muscle is thick and thus the underlying cortex is more protected than the eyeball; besides the underlying cortex itself is comparatively a silent area of the brain so that even if it were injured by some sharp object being thrust into the opening, no clinical signs would appear.

The vertical incision of the scalp in this operation is far superior to the older method of a curvilinear incision over the parietal crest. Not only may the pressure-traction method of hemostosis be used much more effectively with the vertical incision, but the temporal artery is clamped at its lowest point and before it branches into numerous smaller vessels, whereas in the curved incision, the many branches of the temporal artery are severed individually and each one must be clamped separately; again, it is easier to enlarge the bony opening downwards to the base of the skull when the vertical incision is used—a very important point for drainage in cases of fracture of the skull. To preserve the strong attachment of the temporal muscle to the parietal crest is very difficult and even impossible when the usual curved incision is used; in this manner, the decompression may so weaken the side of the head that a hernia cerebri appears as the intracranial pressure increases; especially is this true in irremovable tumors of the brain; this complication is a most rare occurrence following a decompression performed with the vertical incision and a careful regard for the attachment of the temporal muscle.

CONCLUSIONS.

The operation of cranial decompression is one that should be used much more frequently than it is at present; especially is this true in the conditions of brain tumor, fracture of the skull, brain abscess and selected cases of spastic paralysis due to an intracranial hemorrhage at birth.

The sub-temporal method of cranial decompression is the ideal route; besides being less difficult technically, it exposes an area of the brain most frequently involved. This permanent decompression opening does not weaken the skull in that the thick overlying temporal muscle protects it most adequately so that hernial cerebri are not to be feared.

The operative mortality is low. Patients with intracranial conditions should not be permitted to become blind or to reach the dangerous stage of medullary compression without a sub-temporal decompression being performed early.

ACUTE APPENDICITIS.*

BY KARL DOEGE, M. D., F. A. C. S.,

MARSHFIELD.

It is now more than thirty years since the subject of appendicitis has engaged the attention of the profession. Back and forth it has swayed the minds of medical men as to etiology, diagnosis, and treatment. For a long time the pendulum of treatment has swung and remained well over on the surgical side, but every little while an attempt is made to bring it back to the medical realm temporarily, at least, and in certain cases. It would seem that through the observations made by operating hundreds of thousands of cases the profession should by this time have been able to set to rest and settle all doubtful questions pertaining to this disease, and that there should be but slight excuse for bringing the subject again to the attention of a big body like the Wisconsin State Medical Society. In the letter your chairman wrote to me, he put the query: What per cent of cases of acute appendicitis that are referred to you for operation are clean cases and how many have gone on to suppuration? The answer "Too many suppurative cases" should furnish the reason for again discussing the subject today. Throwing a sidelight on both query and answer, it would seem to me that the very question implies the existence of a wrong state of affairs in regard to this disease and that the answer "too many pus cases" contains a regret and a reproach. The reason why so many cases of appendicitis are permitted to reach the suppurative stage may rest with the patient and his family or with the attending physician. In spite of all that has been written and said in regard to appendicitis there still is a too large percentage of people who either through ignorance do not consult a physician sufficiently early, or who are so fearful of the prospects of an operation that they permit the disease to progress to an advanced degree before they finally conclude to seek advice of their physician. Frequently, however, the physician is called sufficiently early, he recognizes the nature of the trouble, yet he hesitates to urge a prompt operation. I cannot help but think that the physician who procrastinates in an abdominal emergency like this cannot have a clear understanding of the sequence of pathological events that take place in an acutely inflamed appendix, and is not sufficiently alert to the gravity of the impending events.

The etiological factors at work in the production of appendiceal inflammation have been discussed extensively and while the presence in the lumen of the appendix of fecal concretions, oxyuris, small foreign bodies, such as bristles from a tooth brush, pins and so forth, are commonly recognized as causes, a new interest has been given this phase of the question by Rosenow's apparently conclusive experiments demonstrating the, at first, almost inconceivable fact, that certain strains of streptococci have developed a selective action for the appendix, that is to say, that this particular strain of germ by preference chooses the appendix as its habitat. The germ most commonly involved, however, is no doubt the colon bacillus, but that this streptococcus is frequently at fault I know from personal cases and to my own satisfaction. Anderson has drawn attention to the relationship of tonsillitis and appendicitis. He explains that the streptococcus may enter through the tonsil into the blood stream, and give rise to a general septic infection with an appendicitis as a focal expression of the disease. I have reasons to think that I have seen at least three cases of that nature and have lost each one of them. All three were young men operated upon the second or third day of the disease. The appendix was free in the abdominal cavity and surrounded by a limited amount of pus. It was removed and the abdomen drained. They did well for four or five days. Then the temperature rose, slight nausea and vomiting occurred, the abdomen became more tender, tympanites was absent and they all died on the tenth to thirteenth day. In two cases a saneous looking pus was found free over the entire abdomen with the streptococcus present in all of them. The third one I did not open to examine. In the light of Rosenow's experiments, of Anderson's observations and of my own experience, I would regard the streptococcic infection of the appendix and that following a tonsillitis as of an especially serious nature for the streptococcus has probably the same tendency in the abdomen that it has in cases of erysipelas of the skin, that is, not to penetrate deeply, but to spread superficially, thus accounting for the grad-

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ual extension of the infection over the entire abdomen in my cases.

During twenty-six years of medical practice I have operated over a thousand cases of appendicitis and have during the last eight years kept in mind two guiding principles, which I have adherred to faithfully and without wavering in every case but one; first, to operate all cases of appendicitis at once, regardless as to the length of time it had existed; second, to remove the appendix invariably at the first operation. Owing to this rule of conduct I naturally have seen the appendix in all stages of inflammation, presenting a variety of pathological conditions.

The following pictures were observed:

1. The distal end of the appendix was inflamed, the proximal end almost normal.
2. The proximal end was inflamed, the distal end almost normal.
3. The entire appendix inflamed and thickened.
4. Appendix and small portion of proximal caecum or entire caecum inflamed and thickened.
5. Appendix inflamed with pin-point perforation.
6. Appendix with large perforation.
7. Appendix inflamed and partly gangrenous.
8. Appendix entirely gangrenous.
9. Appendix representing nothing but a decomposed slough.

It is evident that with any of these pathological pictures present we should expect a variable amount of involvement of the visceral and parietal peritoneum. The concomitant peritonitis in fact ranges from a localized irritation of the peritoneum to almost complete involvement of the peritoneal cavity and pus formation. While the above mentioned pathological pictures are readily recognizable at the operation it has proved to be a most difficult undertaking to diagnose and to trace with any degree of certainty, the state of pathology of the appendix before operation. The diagnosis of appendicitis is generally not difficult if we are careful about two things, first, to get a good history of the patient, and second, actually to make a careful examination of the person, and to do this at once. Not infrequently the physician has assumed an "indigestion" and made no real examination until a few days later. Failure in one of these points may postpone the recognition of the trouble and cause a delay of proper treatment, that may be disastrous. The sequence of symptoms and events is always quite typical in appendicitis, if we will but look for and properly interpret the symptoms. The patient complains at first of general abdominal, more often, epigastric pains. There is slight nausea and later vomiting. There is a certain degree of elevation of temperature and physical examination reveals tenderness on pressure in the right side of the abdomen. These symptoms are always present. It is true that the amount of pain, the amount of nausea and vomiting, the degree of fever and the extent of localized tenderness may vary, but they are always present, to a degree, and it behooves us to find these symptoms and signs if we want to be justified in making the diagnosis of acute appendicitis. It is also true that these symptoms are not necessarily present at the same time, nor all the time; that some of them will appear, disappear, and re-appear, but careful questioning of the patient will always elicit the fact that they are, or at least were, present. Except in very small children, where the history cannot be readily attained and the result of physical examination is vitiated by fear and crying, there should rarely be any reason for not recognizing an appendicitis, when it is there.

It may be of interest to discuss the above symptoms more minutely.

General abdominal pain. It is mainly present in the beginning of the attack and disappears within a few hours, no matter whether the case gets better or worse. It is no doubt reflex and is caused by the irritation of the end of the fibres of the visceral sympathetic nerves, all of which converge towards the sympathetic plexuses in the root of the mesentery and around the coeliac axis, thereby causing pain and discomfort in the epigastrium. On account of the arrangement of the nerve supply of all of the abdominal organs, this epigastric or general abdominal pain is not peculiar to appendicitis but is elicited by an affection of any organ in the abdomen, whose nerve fibres terminate in the solar plexus, no matter whether the lesion be peritoneal or intra-intestinal. In intra-intestinal lesions the epigastric pains may persist a long time.

In acute appendicitis it soon stops. Why? I do not know. No entirely satisfactory explanation of the mechanism of this epigastric pain has yet been given. Lennander's experiments have proved conclusively that there are no sensory nerves in the appendix nor in its mesentery, nor in the visceral peritoneum and that the appendix and bowel and the mesentery can be pressed between the forceps and cut, without pain. However the slightest pull on the mesenteric root will be noticed as discomfort or severe pain. Whether this pull is due to distension of the bowel and appendix with gas, or to the tugging produced by temporarily increased peristalsis on adhesions involving the root of the mesentery, or whether these pains are solely produced by toxines, no one at present seems to be prepared to say.

It has been suggested that this pain in reality is a pyloro-spasm brought on reflexly and wisely to prevent food from entering the bowels, thus accounting for the pain, nausea and vomiting.

Fever and pulse. Elevation of temperature is very variable as to degree and time and persistence, depending upon the amount of inflammatory reaction present. It is usually mild from the beginning, 99-101. It may be present and then temporarily absent especially in gangrenous cases. In itself it is no criterion; its absence is of no diagnostice value, as it may temporarily disappear in gangrene and when the appendix perforates. An unusually high degree of fever from the first, however, should make us dubious of the diagnosis of appendicitis and cause us to look for a basal pneumonia and pleurisy, a cholecystitis or typhoid fever. The initial elevation of the pulse is usually very moderate but becomes faster as the case progresses. A fast pulse with a low temperature is absolutely ominous and means extreme danger and sepsis.

Local tenderness. This is perhaps the one sign, in the absence of which we would hesitate to diagnose appendicitis. It is *the* one sign we always look for. Its location under McBurney's point is fairly constant though its intensity is extremely variable. The location of the appendix, whether high or in the pelvis, deep or superficial, medium, lateral or behind the coecum to some extent determines the degree of local tenderness we may be able to elicit on examination. Given a same degree of inflammation, pressure over McBurney's point, when the appendix is located in the pelvis, may be but slight. So would it be if located deeply and covered by bowel, the latter then acting as a protecting cushion. Extreme local tenderness at an early date would suggest an inflamed appendix lying immediately under the parietal peritoneum and pain on pressure in the lumbar region would imply a retrocaecal location. Left sided pain would suggest a displaced appendix or a very long one, perforated at the tip. The pain is not only elicited by pressing directly over McBurney's point but it also may be made evident or in doubtful cases verified by pushing and crowding the left side of the abdomen when pain will be felt in the right, by pulling on the cord of the testicle, by straightening out the right thigh and leg and by digital examination per vaginam or rectum. This latter method, the vaginal and rectal examination, is never to be neglected and is of extreme value in all cases, but especially in refractory children, where very often in an otherwise soft and yielding region a tender infiltration would be a positive evidence of an inflamed appendix. This sign on several occasions has enabled me to diagnose satisfactorily a case where other and conclusive evidence was not obtainable.

Muscular rigidity. This is generally present in the right rectus or oblique abdominal muscles and is no doubt a reflex phenomenon. It is not necessarily due to a peritonitis underneath as it is also found in some cases where no peritonitis is present, as in pleurisy at the base of the lung and in renal colic. Failure to recognize this fact has frequently led to serious errors in diagnosis and treatment. In diffuse cases of peritonitis the whole abdomen will be rigid, which rigidity will disappear as the inflammatory process progresses and tympanites takes place. Initial general rigidity must be approached carefully and with a certain degree of suspicion as it occasionally may be due to anxiety and may be produced at will of the patient. Unilateral or local rigidity however cannot be imitated. Its presence means trouble underneath and is therefore of the greatest value in the diagnosis of acute appendicitis. An increased leucocyte count is generally present in most cases, except in the overwhelmingly septic, where it may be absent.

The above enumerated symptoms, if properly

weighed and balanced in our minds, should enable us to arrive at a definite opinion. It would not be serving the purpose of this paper however were I to be satisfied with the mere tabulation of the symptoms and if I would not specifically insist and demand that the diagnosis of this dread disease be made early. In fact, strictly speaking, appendicitis pure and simple can be diagnosed only in the first twenty-four to thirty-six hours, not later; what you diagnose after that is not appendicitis, but the focal or general peritonitis that results from it. Beyond that time limit, extension of the pathological process may extend beyond its initial and distinctive sphere of influence and encroach upon and overlap the initial areas of other abdominal affections, which to differentiate may be a distinctly difficult problem. May I allude to inflammation of the gall bladder? Its initial area of focal tenderness is distinct and separate from that of the appendix, yet as they progress and extend they will encroach upon and overlap another. It is not my purpose to enter extensively into the differential diagnosis of other abdominal affections, except to enumerate them in a casual way. Besides acute cholecystitis may be mentioned right sided renal colic, perforation of ulcer of the stomach or bowel, tubal affection, twisted pedicle of an ovarian cyst, extra-uterine pregnancy, Meckel's diverticulitis and so forth. The danger of diagnosing a right sided pleurisy as an appendicitis has been alluded to and especially in children do I not consider an examination for appendicitis complete that does not take into consideration the condition of the lungs and pleurae. Perhaps the most frequent error made in the early diagnosis of appendicitis is to look upon it as a case of ordinary "Belly-Ache" or intestinal indigestion. The history as to whether or not a dietary error has been made will help some. Like in appendicitis, rigidity may be present but with it usually there is a tendency to diarrhoea. It must not be forgotten however that diarrhoea may lead to an inflammation of the appendix as I have had occasion to observe not infrequently, in children.

The diagnosis of acute appendicitis having been made, what are we going to do about it? The surgical method of treatment in this country especially, is so well established that to the minds of most of us non-operative treatment would require an explanation and we would have to be shown why we should not operate. It is no more than just however to state that there are some gentlemen of ability that believe that there is such a thing as medical treatment for appendicitis. In support of these may be mentioned the fact that the surgeons of Germany, France and England, as a rule, take a more expectant attitude than we do. Guthrie in the "Lancet" as a proof of his conviction of the importance of the bacterial invasion of the appendix, reports twenty-two cases of appendicitis as treated by a serum and vaccine of the colon bacillus. All recovered without operation. Lejars in his book on "Urgent Surgery" while advocating immediate operation, mentions a "treatment of Immobilization" for cases where the operative consent cannot be obtained. He requires general immobilization of the body, i. e., rest in bed and immobilization of the intestines, by such means as continuous application of ice to the abdomen and the prohibition of purgatives and enemeta. "He gives nothing by mouth, no beef tea, no milk, nothing, only a little Vichy water to allay the thirst." However the conscientious physician should consent to take a part in this line of treatment only if he could have the opportunity to watch the patient or have him watched by a competent person every few hours of the day and night, in order to detect the first sign of extension of the trouble. Here I wish to emphasize that the physician in the country away from a hospital, whose opportunity for watching the patient is limited, in my opinion, is not justified in resorting to such dilatory measures. "Watchful waiting" is not applicable in his surroundings, for while he can wait, he cannot watch, and while he is waiting the pathological event may move fast. Even at that I feel that we are taking risks with the patient, for personally I do not feel that I possess such refined diagnostic ability that would enable me to trace the progress or retrogressions of the disease by the present and ordinary methods at our disposal. Dr. Deaver quotes Dr. N. H. Fussell, an internist, as saying, "I thoroughly believe that at least three-quarters of the cases of appendicitis would recover if not operated upon, but I know there are no symptoms that tell when a case is approaching the danger line until it is extremely dangerous, either to interfere or to wait." And what are we to wait for anyway? To save the patient his valuable appendix? No matter whether we think of the appendix as a "vestige" of a former evolutionary period or whether we look

upon it as an organ with a definite "Function" in the intestinal tract, the appendix, once acutely inflamed, has probably forever lost its ability again to functionate as an auxiliary digestive organ, whether the inflammatory process terminates in spontaneous recovery or whether the appendix is eliminated by the process of gangrene or by the surgeon. In either event there will be no more secretion of hormones to stimulate peristalis, nor will it act again as a culture tube for the flora of bacteria needed in the colon for colonic digestion, as suggested by Waller and Cole. Whatever its function, if any, may be, I am convinced that an appendix once acutely inflamed has become useless by virtue of the inflammation and as such is a debit and not an asset to the human economy and should be removed.

The rate of mortality for the very early operation of acute appendicitis is less than one per cent. I do not know what the rate of mortality is for similar cases under medical care alone, but I would venture to state that it is much higher. This being the case, it would seem as though there should be no choice as to what we ought to recommend for our patients. Acute appendicitis at the present time almost universally is recognized as a surgical affection by the profession. Of necessity and on account of other circumstances we cannot control and as a matter of mature judgment, we often may feel impelled, temporarily at least, to resort to the medical means of treatment. The application of the ice bag, complete abstinence from food, rest in bed, are always indicated whether we choose to operate or not. In this connection I would want to warn against a practice that is so universally followed by the laity in acute abdominal affections and not infrequently by the profession. I refer to the use of laxatives. It is no doubt true that an acute intestinal indigestion is very decidedly benefitted by the prompt exhibition of a cathartic, and if there is distinct evidence of a dietetic error, and if no local tenderness can be detected in the abdomen, there is no valid reason why a laxative should not be given. However, if there is the least suspicion of appendicitis or peritonitis, a laxative is absolutely contraindicated. Federmann has put all cases of appendicitis into two general classes: those that have a tendency to localize, and those that spread. It is true that the vast majority of appendix cases have a tendency to localize and limit themselves to the appendix region and will confidently do so, especially if aided by the beforementioned medical treatment. If, however, at this stage we give a cathartic we do the very thing that would counteract nature's attempt at localization. The increased peristalsis would have a distinct tendency to spread the infection. If the patient has been constipated it may be well to empty the rectum and colon by an enema, but never give a cathartic. If your case should be one of acute indigestion no harm can follow even if you do not as promptly empty the intestinal tract, but great mischief might be done if it should prove to be a case of diffuse peritonitis. In this connection I wish to say a few words concerning the so-called starvation method recommended by Ochsner of Chicago. When some years ago Ochsner in a paper before the A. M. A. explained and advocated his method of treating those appendicitis cases that had gone on to extensive and diffuse peritonitis, it was justly greeted with general applause. It was never intended by him that this method should or even could supplant the operation. It was mainly devised to better the chances of those desperate cases, septic and run-down, that had been wrongly treated by cathartics to eliminate the sepsis, and by plenty of nourishment to build up the patient. He showed the fallacy of the latter treatment and the Ochsner starvation method in his hand was wonderfully effective. However the method and its aims and purpose have been much misunderstood and I have seen some deplorable results following its misapplication. Starvation was employed from the first in all cases and was continued even in the face of a progressive and spreading peritonitis in the vain hope of arresting the disease. This of course is radically wrong and should be discontinued.

I also wish to say a few words as to the use of morphine. It is my opinion that morphine has no place in the early treatment of acute appendicitis. As a means to promote comfort after the patient has given his consent to an operation or is en route to the hospital it is indicated, but not as a means of treatment.

Being convinced as I am that acute appendicitis is a surgical disease I advise operation in every case. I operate as early as I can, and if the case is a late one, and advanced, I operate it as soon as it arrives at the hospital, day or night. I operate them at all stages of the disease except the greatly distended. I have attempted to follow the

lead of others and have tried in severe cases to wait for a more favorable period for operation. Whenever I have done this I have been sorry for it and have abandoned it, for I can do better with the immediate operation. In late years I always have removed the appendix, except once in an apparently moribund case, the patient dying six weeks later.

In the early cases, those that are not ruptured, I make a transverse incision, using McBurney's muscle-splitting method. The mesentery is tied, the base of appendix crushed, tied, cauterized, inverted and closed in by a purse string, then the ends of this purse string and ends of the mesenteric ligature are used to form a knot drawing the stump of the mesentery to the base of the appendix. The same incision and method of opening can be used where but small quantities of pus are expected.

For diffuse cases and walled-off abscesses I use the right rectus incision. All pus cases receive one drain to the base of the removed appendix and one to the depth of the pelvis. Circumscribed abscesses, even if large, but not enormous, are opened by first entering the free abdominal cavity. The abdomen is packed off by a little gauze above, below, and towards the free abdominal cavity, and then the abscess is carefully opened and the pus taken care of as it slowly is allowed to escape. In former years I used to attempt to drain these pus sacks by avoiding the free peritoneal cavity and aimed to enter the pus cavity directly. It is a bungling job, very unsafe, as during the manipulation the adhesions opposite may give way and pus escape into the abdomen without your knowledge. By entering the free abdomen first the whole pus cavity, after emptying it, can be inspected, other pus pockets can be found, the appendix can and should be removed and proper drainage applied. We have learned not to be afraid of soiling a little additional bowel with pus, it does no harm. I have never seen an extension of the peritonitis from it.

The cases that are hardest to deal with are those of diffuse peritonitis with great abdominal distension. I do not like to operate them because of the great difficulty to control the constantly protruding bowel. These should be treated by abstinence from food, frequent lavage of the stomach and ice or heat to the abdomen, and saline per rectum until the distension disappears, when an operation can be safely performed.

Moribund cases will die, but even in the apparently moribund occasionally one will survive if given the benefit of a simple drainage operation, if done quickly and under local anesthesia. Here surgery often will get a black eye but it is not a question of preventing the humiliation of surgery but it is a question of saving the life of the patient, and I have never seen any case so sick but what I was willing to give him the benefit of some sort of a surgical procedure.

Brief for Health Insurance.—A death rate for American wage earners twice that of professional men; the prevalency of high sickness rates; the need among workers of better medical care and of a systematic method of meeting the wage loss incident to sickness; and the necessity for more active work in the prevention of disease are the corner stones of the case for compulsory health insurance presented in the brief just published in New York by the American Association for Labor Legislation. This situation, it is pointed out, cannot be met fully by existing agencies, and can only be properly remedied by a system of health insurance embracing all wage earners and dividing the cost among employee, employer and the state.

The great amount of sickness in the homes of the poor causes an average loss by each wage-earner of 9 days a year, and involves annually a national wage loss of approximately $500,000,000. Notwithstanding the greater prevalency of tuberculosis among wage-earners, their early susceptibility to the degenerative diseases of middle life, and the excessive death rate among the industrial population, workers often are unable to secure the medical attention they require. In Rochester, New York, it was found that 39 per cent of the sickness cases were not under a doctor's supervision; in a city like Boston, Massachusetts, one-fourth of the population, it is estimated, are unable to pay the fees of a private physician.

The lowered vitality and the poverty created by present day conditions it is claimed can only be checked by a system of health insurance, which for a small sum divided among employer, worker and state, will bring medical care to the wage-earner and his family, will assure for a maximum of 26 weeks in a year a weekly payment of 2-3 of wages during the breadwinner's illness and in additional a small funeral benefit should he die. "Compulsory health insurance," concludes the brief, "is an economical means of providing adequately for the sick wage-earner, and will prove a mighty force for the inauguration of a comprehensive campaign for health conservation."

HEREDITARY SYPHILIS FROM THE MODERN STANDPOINT.

BY C. A. BAER, M. D.,

MILWAUKEE.

Much work has been done during the last months in the sphere of hereditary syphilis. You all know the older conceptions regarding the transmission of syphilis to offspring, and I shall take no time for a review of the theories, symptoms and therapeutics of hereditary syphilis. My efforts shall be directed towards a hurried consideration of theories and therapy revolutionized within the last months by the application of the Wassermann test and the use of neosalvarsan. Our conceptions of many of the features of hereditary syphilis shall have to be altered. The Wassermann reaction has greatly changed our views on this subject.

In new born syphilitic infants without symptoms, the Wassermann reaction is often positive because the fetus absorbs substances from the placental circulation without actually becoming infected. Armstrong[1] states that 5 per cent to 10 per cent of infants born of syphilitic mothers survive the first year of life and that many of these infants show positive Wassermann reactions without clinical symptoms. Of 101 mixed hospital children studied by Churchill[2] 38 per cent gave positive Wassermann reactions. Lucas[3] states that where mother and child both give Wassermann positive, there is always *active* lues in the child. Roddy[4] found that of 11 per cent of all the children in his hospital, 1 per cent had Wassermann positive reactions.

In 1837, Colles, from exhaustive studies, induced the statement that has ever since been known as Colles' law, namely, that a mother giving birth to a syphilitic infant cannot be infected with syphilis and is therefore immune. According to our newer studies, this Colles' law has been overthrown, because 75 per cent to 100 per cent of apparently well mothers of syphilitic infants give positive Wassermann reactions. Matzenauer[5] reports so-called immune mothers who develop syphilitic symptoms and also mothers whose second husbands have not been syphilitic and who have given birth to syphilitic children in second wedlock. Neisser[6] found no evidences of active or passive immunity in syphilis.

Our ideas regarding Profeta's law, the corollary of Colles' law, namely, that obviously healthy children born of syphilitic mothers are immune to syphilis, must also be altered. These children of Profeta's law are not immune to, but have, latent syphilis. After the first year the Wassermann reactions on the bloods of these children are practically always positive[5]. Syphilitic children may remain in a latent state for a long time. Soldin and Lesser[9] explain that during the intrauterine life of the child, immunizing substances from the syphilitic mother were transferred to the child, and these immunizing substances hindered the further transplantation of the spirochete to the child—therefore these children have positive Wassermann reactions without clinical symptoms. As stated before, syphilitic children may remain in a latent state for a long time. Numerous cases showing symptoms have recently been reported in patients past twenty years of age, even in middle adult life. Warthin[7] explains this by his theory that human tissues grow so accustomed to the infecting agent that the body cells and the spirochete live in symbiosis with each other. Fournier[8] reported 100 cases in which congenital syphilis remained latent into adult life and caused the transmission of syphilis into the third generation.

Trinchese[10] concludes that Colles' and Profeta's laws were based on mistaken premises and do not correspond to the facts. The earlier the fetus is infected, the more rapidly the disease runs the course of sepsis, killing the fetus within six weeks. Until the eighth month, the fetus does not generate immunizing substances, i. e., its blood responds negatively to the Wassermann test even tho its tissues be swarming with spirochete and the mother gives a positive Wassermann. In the eighth and ninth months, the fetus presents a weakly positive Wassermann reaction. If the child become infected during the last few weeks before birth, there may be no clinical manifestations of syphilis and no positive Wassermann, because the time for developing either has been too short.

Now, a few words regarding the most modern treatment of congenital syphilis. Mercury was the standard drug used until salvarsan was introduced some five or six years ago. Salvarsan was at first administered directly to the infant, but with rather disastrous results. Then it was considered better to administer the salvarsan to the nursing mother. Results were but fair and most syphilologists returned to the mercury inunctions and internal

powders. In the last few months, neosalvarsan has been used extensively on syphilitic infants with very gratifying results. Finlay[11] has prepared a very striking comparison in the mortality rates of cases of congenital syphilis treated by various methods. Cases treated with mercury inunctions to the child and potassium iodide to the nursing mother showed a mortality of 66 per cent of all cases and of 71 per cent of cases under three months of age. Welde[12] gives the mortality of 77 per cent in children under three months; while Hyde[13] states that the death rate in children under one year treated by mercurial inunctions is 95 per cent. Those treated by intravenous administration of neosalvarsan and mercury inunctions showed a mortality rate of 45 per cent. The antenatal treatment of the mother by intravenous neosalvarsan and mercury inunctions gave 93 per cent according to Sanvage[14] and 100 per cent according to Bourret and Fabre, of cures, i. e., of births of apparently healthy infants with negative Wassermann reactions. Finlay[11] states that salvarsan is superior to mercury in alleviating the manifestations of congenital syphilis, and that salvarsan ought to be administered intravenously. The prenatal treatment is more successful with salvarsan than with mercury.

The method of intravenous administration of neosalvarsan to an infant is of interest. The neosalvarsan solution is given into a scalp vein as proposed by Neff[16] in very young infants, while in those over six months of age, the external jugular, as explained by Maggiore[17], may be used. Two doses are given and then a course of mercury inunctions. Doses vary from 0.075 gm. under 6 months to 0.15 gm. over 6 months.

In passing I might say that salvarsan injections have but little effect on the interstitial keratitis seen in syphilitic children of eight or ten years of age. The old laborious mercury inunctions, potassium iodide internally treatments must still be followed in these cases.

In closing I would again state that I have not attempted to give a presentation of the subject of hereditary syphilis, but have tried to point out in the ten minutes allotted to me, the most recent advances along this line.

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NOSTRUM PRESCRIBING.—Ours is considered a learned profession; we enjoy great privileges and have correspondingly important duties to the public; we hear it asserted frequently that our profession is engaged in a great struggle to alleviate suffering and to ameliorate the condition of mankind. It is indisputably true that a vast amount of our energy is thus directed, but unfortunately, it is just as indisputably true that we have permitted ourselves to become the "dupes and accessories" of nostrum venders; we have continued to prescribe nostrums that have been proved to be fraudulent even though not a word of evidence has been offered in their defense. We have accepted fees for prescribing drugs and nostrums about which we knew no more than did those for whom we prescribed; we continue to support medical journals that assist in the exploitation of nostrums that are known to be useless; we admit profound ignorance regarding the actions of all of our drugs, and yet we spend little time in investigating them. We use drugs recklessly when we are employed to save life and are trusted as men in no other profession; we take words out of the mouth of ignorance and proclaim them with authority; we take statements without evidence to support them, and on them base the treatment of the sick; but we would not risk our savings on the strength of such flimsy assertions.—*R. A. Hatcher, J. A. M. A., Nov. 4, 1916.*

PROVISION FOR MEDICAL CARE UNDER HEALTH INSURANCE.*

BY ALEXANDER LAMBERT, M. D.,

NEW YORK.

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The inevitability of health insurance for the wage-earner under state auspices is so widely recognized that it behooves the medical profession to consider seriously this subject which so vitally affects the health of the industrial population, as well as matters of professional interest. The forerunner of health insurance—workmen's compensation—already has been adopted in thirty-four states within the short space of six years, while in a few states payment is made under workmen's compensation for diseases clearly contracted as the result of employment. The next logical step is, therefore to protect the wage-earner not only when his disability is due to sickness or accident arising directly from his employment, but also when his disability arises less obviously from this as well as from other sources.

Bills providing for just such protection to manual employes and other employes earning less than $100 a month were introduced into the legislatures of Massachusetts, New York, and New Jersey during the session of 1916. For these groups health insurance is made compulsory, because experience elsewhere has shown that voluntary insurance does not reach the persons who most need protection. The benefits provided are medical, surgical, and nursing attendance, including necessary hospital care, medicines and supplies; also a cash benefit beginning on the fourth day of disability equal to two-thirds of wages and given for a maximum of twenty-six weeks in one year; and finally a funeral benefit of not more than $50. The cost of these benefits and their administration, amounting to about 3 per cent of the wages, is to be borne two-fifths by the employe, two-fifths by the employer, and one-fifth by the state. The administration is to be vested in mutual associations of employers and employes, organized according to localities and trades, and managed jointly by employers and workers, under the general supervision of a state social insurance commission.

The organization of this medical aid under health insurance presents very definite problems, of which one is the adoption of a system of administration which will guarantee excellent medical service. A second is the adoption of a method of payment which will be not only adequate to the physician, but which will also encourage a high standard of service.

An effort to solve some of these problems has been made in the third edition of a model health insurance bill just published by the American Association for Labor Legislation. In this draft no single method of organizing medical aid has been saddled on any one insurance carrier; instead, each carrier is free to select the method most suited to local conditions, subject to the approval of the social insurance commission. In granting approval the commission will be guided by the advice of the medical advisory board selected by the various state societies, so that the medical profession will have an opportunity to express its preferences through this body, which is to be consulted on all medical matters. As an alternative, the carriers in a district may unite into a health insurance union, and co-operate in the arrangements with general practitioners, nurses, specialists, or hospitals.

One arrangement which a carrier or a health insurance union may adopt is that of a panel of physicians. If this method is selected, certain conditions must be fulfilled. First, any legally qualified physician shall be entitled to join the panel. The possibility of setting a definite qualification, such as an examination or other test for physicians wishing to undertake insurance practice, has been suggested as one means of obtaining especially well-qualified men. This method would, of course, offer some guarantee that an insurance doctor would be a more able man than some practitioners found in industrial districts. As a matter of practice, it is difficult to see how mutual associations of employers and employes established by state legislation would be justified in setting up standards for medical practice other than those maintained by the state law for licensing physicians. For this and for other reasons it seems desirable that health insurance should not set up a conflicting standard. A second stipulation is the right of the patient to select any doctor on the panel, subject to the physician's right to refuse a patient. This provision is one which many physicians and patients believe

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essential if the personal relationship between doctor and patient is to be maintained. A third condition is contained in the limitation placed on the number of insured patients whom a panel physician may undertake to treat. This is expected to prevent undue concentration of patients among a few physicians, and thus prevent the hurried attention given to patients when insurance practice is too large. On this point of careless work the Publication Committee of the New York *State Journal of Medicine* says, "Medical public opinion demands . . . . that the physician shall not permit himself to be placed in positions where he gives careless, incompetent service, to the injury of those under his care. Any physician neglecting this standard loses caste. He is condemned by his colleagues, and the position or system in which such service is likely to occur is held in contempt by the profession, and has been classified under the opprobrious name of contract practice. All medical service is really a contract, and many physicians under salaries, such as those with insurance companies or railroads, are not condemned, nor do they lose caste by accepting such contracts. But any contract which carries with it an unreasonable amount of work by the doctor, which in turn forces neglectful, hurried service to the patients, is always condemned." Undoubtedly the low rate of payment prevailing in lodge practice has tempted some physicians, if they are to make a living, to treat more patients than they can give careful attention. The proposed establishment of a maximum number of insured patients will eliminate the most flagrant abuse on this score.

A second method of organization is to employ salaried physicians, and to give the patients reasonably free choice among those so employed. This system, already common in industrial practice in this country, may prove especially advantageous in localities where a large number of persons are employed in any one industry or plant, because of the familiarity which a doctor will gain of the illness traceable to the occupation. In still other areas a carrier, as a third possibility, may provide a district medical officer for the service of all patients within a specified area. Although these last two methods do not provide for the free choice possible under a panel system, the insured persons and their employers, through their representatives in control of each fund, are free to select the system the members prefer.

Supervision of doctors by other physicians would effect an improvement over the present-day medical practice, since supervision will bring to light the incapable man who, by his actual handling of cases, has proved his inability. On such findings of fact a carrier responsible for the proper care of its members would be justified in excluding from its panel the physician who had proved incapable. This oversight is provided in the bill through the medical officer of the fund employed to "examine patients who claim cash benefit, to provide certificates of disability, and to supervise the character of the medical service in the interests of insured patients, physicians, and carriers." A suggestion of doubtful value and probably impractical has been made that these duties might very well be intrusted to an officer of the state board of health appointed with special reference to his qualifications for this service, and that thus the judgment of an impartial physician as well as the official co-operation of the health department would be secured. It is evident that in either case the medical officer who examines the patient asking for benefit, and who furnishes him from time to time with a certificate of disability, will be in a position to know the efficiency of each individual physician. Moreover, the separation of the two functions of treatment and of certification will relieve the attending physician of the distasteful duty of refusing a certificate to a patient, and at the same time will free him of any fear that, because of care in granting certificates, he is losing popularity with his patients. This simple expedient will probably do as much to maintain a high standard of service as almost any other one provision of the bill.

The easy access to a second opinion, which will entail no extra expense to the patient, and the ready co-operation between the general practitioner, the specialist, and the hospitals would also be an improvement. Hospital care, as one of the benefits which have been paid for in the weekly contributions, is to be given during twenty-six weeks of disability in the necessary cases, with the approval of the medical officer and with the consent of the insured patient or his family, and may be demanded by the carrier if it is imperative for the proper care of the patient. If, under such circumstances, the insured should refuse to enter a hospital, he is to be penalized by having his cash payments stopped. Financial arrangements for hos-

pital treatment which have met the approval of the social insurance commission may be made by the carriers directly with the hospitals. As an alternative, hospital care may be furnished in hospitals erected and maintained by the fund, with the approval of the commission. But, in either case, hospital care for the insured is to be paid for, just as other medical service for the insured will be remunerated.

The second problem, that of paying physicians, is no inconsiderable part of the problem of providing efficient service. It goes without saying that physicians should be adequately remunerated, and that much of the unpaid practice of today, as in the dispensaries, will be compensated under health insurance. The question of what is "adequate remuneration" under a system which will assure 100 per cent collections will arise, but of even greater importance to the medical profession is the basis on which payments are made.

It is the inherent defects in a capitation payment of so much per person per year, which the New York *State Journal of Medicine* points out, that have made "lodge practice" so opprobrious among the medical profession. In other words, it is the basis, not merely the rate of payment, which has encouraged careless work for these lodge patients, for whom payment is received regardless of the services rendered. A search must be made for some basis which will escape this difficulty. Payment per visit, while it avoids this difficulty, since it remunerates the physician in proportion to the services rendered, and while it affords more considerate care for the patient, has the unfortunate practical disadvantage of being very costly. A compromise between these two systems may be made whereby a sum calculated on a per capita basis is divided among physicians in proportion to the services rendered by each. This system presents a known charge to the insurance funds, makes it possible for physicians to check those few who may make unnecessary visits in an effort to increase their income artificially, but unfortunately it decreases the payments to physicians with an increase in work as in time of epidemic. On the other hand, the larger payment for each unit of work done when the services are fewer offsets to a degree the disadvantage of the reverse situation, and this may prove a financial stimulus to preventive medicine.

A fourth possible solution is the employment of a few salaried physicians by each fund, similar to the arrangements now made by many railroads. For this problem the bill has not reached a solution, and obviously, if any proposed solution is to be satisfactory to the medical profession, who are most closely concerned, it must have their co-operation.

The inevitable drift in this country to health insurance, which presents new problems to the medical profession, requires the earnest thought of every physician. Each practitioner should consider what improvements he can suggest over the tentative plans, with the present choice of administrative arrangements, with the provision for a medical officer, and with the close co-operation between hospitals and the insurance system. Each physician should address himself particularly to the as yet unsolved problem of the rate and the method of payment. As a result of such careful thought it will be possible to evolve an organization which not only will do no injury to the profession, but which will improve the medical service available to the American wage-earner.

How To Use Drugs.—While the details demand careful study, the broad principles to be followed are plain. The physician must learn to co-ordinate his knowledge of physiology and pathology better for the diagnosis of disease; he must base his therapeutic use of drugs on a more accurate knowledge of their pharmacologic actions; he must know more of the possibilities and limitations of their therapeutic applications; he must learn simplicity in the prescribing of drugs; he must learn something of the recent history of therapeutics in order that he may avoid its pitfalls and the way that lies back into therapeutic chaos; he must learn that independent research offers the only means for therapeutic progress; that accuracy of clinical observation must take the place of vague impressions; that clear and concise descriptions of the therapeutic actions of drugs must replace meaningless statements, such as, "the medicine seemed to do good"; that no statement regarding the actions of a drug should be accepted without analysis of the evidence on which it is based, and that statements without supporting evidence are wholly valueless, no matter how eminent their author may be; above all, every physician must bear in mind that when he undertakes to advise his patients concerning the use of a drug without having first acquired the knowledge on which alone such advice can be given honestly, he is perilously near to the commission of a fraud.—*R. A. Hatcher, J. A. M. A., Nov. 4, 1916.*

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EDITORIALS

A FEDERAL HEALTH DEPARTMENT.

IT must be well known to all that for many years an attempt has been made to have the U. S. Congress pass a bill creating a Federal Health Department. The provisions of the bill consisted chiefly in the grouping of three separated Bureaus which deal with Public Health matters under one department with a Secretary who would be a member of the Cabinet. The three Bureaus were the Bureau of Chemistry, now under the Department of Agriculture and having much to do with the examination of food products which come under the Food and Drugs Act; the Bureau of Vital Statistics now in the Department of Commerce and Labor; and the Public Health Service, a comparatively limited department. The logic of combining these three departments under one head is too evident for argument. Nevertheless, the opposition headed always by Senator Works of California, the champion of Christian Scientists, and including the misnamed League of Medical Freedom, and the powerful coterie of food and drug manufacturers who saw in the change a possibility that they could no longer dictate their will to the Buerau of Chemistry, has thus far balked legislation. Pigs, sheep, cattle and fowls are splendidly cared for. No epizootic breaks out anywhere in the country without a cry for the Federal experts to co-operate with the State authorities to curb the disease. But if diphtheria or scarlet fever breaks out in a community not provided with health officers, the Federal Government on appeal replies that it is sorry but the children will have to get along as best they can.

With the growing interest in Public Health the time will come when the predatory and fanatical opposition to the passage of a bill creating a Federal Health Department will not be strong enough to stem the wave of public sentiment.

We physicians should never miss an opportunity to do propaganda work for this measure. When the bill appears again next session we should see that the Wisconsin men in Congress receive letters and telegrams from men in all walks of life urging the passage of the act. We can at least do that much to further a cause for which we stand committed as champions.

THE A. S. I. S.

RECENTLY in Detroit a group of physicians met together and organized the Association for the Study of the Internal Secretions. From a little journal called rather appropriately and sententiously "The Link," we copy the following:

"CONCERTED STUDY OF THE INTERNAL SECRETIONS.

The Association for the Study of the Internal Secretions has recently been inaugurated with the object of correlating the work of physicians and other students of this phase of medicine in different parts of the world. It is expected in this way to

advance our present knowledge of this interesting subject.

Announcements of this new Association indicate that libraries are to be established and a scientific bulletin published to contain a resume of all the work that is being done in this ever broadening and highly profitable study.

The charter membership includes nearly three hundred physicians in every branch of medical practice and many of those laboratory workers who are delving into the fascinating mysteries of this field. An organizing committee consisting of the following gentlemen is caring for the preliminary work of establishing the Association on a firm and useful basis: Dr. Lewellys F. Barker, Baltimore; Dr. Judson Daland, Philadelphia; Dr. L. R. DeBuys, New Orleans; Dr. Emil Goetsch, Baltimore; Dr. George H. Hoxie, Kansas City; Dr. John B. Potts, Omaha, and Dr. Henry R. Harrower, Glendale, Los Angeles, California, Secretary.

This Association desires that those who have contributed articles pertaining to one phase or another of the study of the internal secretions, send six copies of each of their reprints to Dr. Harrower. These will be catalogued, cross-indexed and made available in six different medical centers.

Those who are interested in this concerted study of endocrinology may with advantage communicate with the Secretary, who will send a full explanation of the aims of this Association and a list of the charter members."

We note the names of some men prominent in the profession so we are assured that this is a bona fide society. But, alas, when will the ever-expanding number of societies be decreased, not continually increased. There may be some members of the State Society who wish to join this organization. Already there are some 300 charter members, a showing which speaks well for the newly born society. Should anyone desire further information the secretary, Dr. Harrower, Glendale, Los Angeles, California, will be glad to furnish it.

TYPHOID FEVER.

WE have not yet reached the time when typhoid fever is a rare disease. It is common enough so that every physician at some time of the year sees one or more cases. There are three points which form the excuse for these remarks.

The first is as to diagnosis. The diagnosis of typhoid fever can be made within the first week and has been made by the writer before the patient was ill enough to go to bed. The natural conclusion from such a statement is that blood cultures are made. Not at all. The diagnosis can be made from a blood smear stained in a few minutes with Wright's or Hasting's stain. A person with fever and with no definite physical signs whose blood reveals leucopenia, increase of the endotheliocytes (transitionals) above 10 per cent, absence of eosinophiles, decreased number of platelets, almost invariably has typhoid fever. The absence of leucocytosis alone in a febrile case raises strong presumption that the case is typhoid fever. The Widal reaction is of little value in the first few days of typhoid fever. Blood cultures are not easy to make, require a special technic and laboratory equipment. Even in the most skilled hands blood cultures are not always positive.

The blood smear method is so simple that it may account for its neglect by the laboratory workers. A few clean coverglasses in a flat tin box, a blood-sticker, and a pair of broad-end blood forceps compose the whole equipment. At the office are stain and distilled water.

So far as our rather wide experience goes, there are only two diseases with a somewhat similar blood picture which might be confused with typhoid fever. These are malaria and acute miliary tuberculosis. The discovery of the parasite of malaria in the stained smear settles the diagnosis in this case. In the other the course and physical signs must be the chief differential points.

The second point is diet. There are still some who adhere to the liquid, semi-starvation diet. Abundant scientific laboratory and bedside proof is now at hand in favor of the high caloric carbohydrate diet. No ill patient should be forced to eat against his will. If he will eat he should have about 3,000 calories (20 calories per pound weight) in twenty-four hours. We have seen both sides of the picture and we confidently assert that the high caloric feeding far surpasses in all respects the semi-starvation diet.

The third point we hesitate to bring forward as we feel that we are still experimenting. We refer to the treatment with intravenous doses of plain killed cultures of typhoid bacilli; the ordinary typhoid vaccine which is used in prophylaxis. The dose is from 50,000,000 to 100,000,000. It is re-

peated, increased or not, as indications suggest, every fourth or fifth day. We have given it once, then waited ten days or two weeks and repeated the dose. Certain cases are aborted as by crisis and go on to uninterrupted convalescence. Other cases are rendered much more comfortable after the initial chill, but the length of the illness does not seem to be abbreviated. Favorable results appear to follow only when there is a chill, sharp rise of fever, and subsequent drop in temperature below normal. Further, our best results appear to be gained when the vaccine is given during the second week. All complications are contraindications so far as we now believe. We feel that this is a distinct advance in treatment. Reports scattered through the literature for the past few years have been generally favorable. The treatment is not new but it is not generally used. It should not be undertaken without a full realization of the possible dangers which might ensue. So far as our experience is concerned there are no dangers when the dose is properly graded at first.

We have had a rather alarming collapse following a drop in temperature to 96° F., but the patient soon recovered from it and convalesced rapidly.

Typhoid fever is apt to be viewed as a disease which takes one or two weeks to diagnose definitely, leaves the patient a weak, living skeleton, and for which little can be done to shorten the course. All of these superstitions we have repudiated. We can diagnose typhoid early, our patients are more comfortable, and the fever is shortened in many. Further, they get out of their beds having lost little or no weight and in three weeks to a month they are back at their former work. Have we or have we not advanced in the management of typhoid fever? Our answer is most emphatically —we have.

NOTE ON AN AUSCULTATORY SIGN OVER THE MANUBRIUM.

In the routine examination of patients, a sign was found on auscultation with the stethoscope on the manubrim which seems to be of some importance, and which is not found described, or is found only casually mentioned, in any books on physical diagnosis which have been consulted. For over a year now this sign has been noted, and has been helpful in determining whether or not the anterior mediastinum was free from encroachments of any kind, organs or swellings or actual tumor masses.

In the normal subject, the anterior borders of the lungs practically unite in the median line beneath the manubrium. They cover the trachea and the large arteries and veins which pass through the anterior mediastinum. The true space is normally only a potential space filled with loose areolae tissue in which are lymph spaces. In the infant the thymus occupies this space in its whole extent, but in the adult this gland is so small that it is often not possible to find even traces of it. The posterior part of the space is bounded by the trachea, which lies at a variable depth from the manubrium, depending on the size and shape of the chest. It may be from 4 to 6 cm. from the manubrium.

These being the anatomic relations, it is not possible with the most accurate percussion to detect any change in the note from that of the lung at either side of the manubrium. Also, and this is the important point, auscultation over the body of the manubrium gives a vesicular murmur, or, at the most, the slightly bronchovesicular character which is usually found over the right upper front just below the clavicle.

It has been found that any solid or semisolid (edema) mass in the anterior mediastinum changes the respiratory sound from the vesicular to harsh bronchial, and finally to typical high-pitched tubular breath sounds.

The cause for this phenomenon is considered to be the interposition of a sound-conducting substance between the trachea and the bone. I have found this sign most useful and helpful in cases of dilated arch of the aorta, and in cases of Hodgkin's disease when the mediastinum contains enlarged glands. At a time when careful percussion reveals no impairment of the note, the breath sounds will certainly be bronchial and may be typical tubular. In one particularly instructive case of Hodgkin's disease, the sign over the manubrium was typical. At operation the surgeon succeeded in removing the mass of glands below the upper portion of the manubrium. Auscultation now revealed only a slight prolongation of the expiration over the upper two-thirds of the manubrium (edema?), but tubular breathing over the lower third.

Tubular or bronchial breathing has been found

in: (1) persistent thymus; (2) substernal thyroid enlargement; (3) edema of mediastinal tissues; (4) enlarged glands; (5) aneurysm; (6) dilated aortic arch: (*a*) acute aortitis, and (*b*) chronic dilatation, and (7) tumor growths.

I have been particularly interested in cases of enlarged glands and those with dilated aortic arches. Thus far all cases in which the sign has been present have been shown by roentgenograms or by fluoroscopy to have had the condition diagnosed with the stethoscope. It is stated in some textbooks on medicine that in aneurysm of the arch the breath sounds over the manubrium are not very audible. This, I feel sure, is incorrect. The error is due to the fact that the loud sounds produced by the closing of the valves of the heart, or by murmurs in the aneurysmal sac, so obscure the respiratory sounds that unless one listens particularly for these sounds he will certainly fail to hear them. As a matter of fact, in all the cases of aneurysm during the past year I have heard this sign, and in two instances tubular breathing beneath the manubrium drew attention to the diagnosis of otherwise obscure cases. It is hoped that others will use this sign and obtain as much help from its presence as I and my assistants have obtained.

SICKNESS SURVEY OF NORTH CAROLINA.

IN the Public Health Reports for Oct. 13, 1916, is the report of Messrs. Frankel and Dublin of the Metropolitan Life Insurance Co., on "A Sickness Survey of North Carolina." The canvass was carefully made among 14,112 families, containing 66,007 persons. There were 43,468 white and 22,539 colored persons. The survey was similar to the ones carried out under the direction of these authors in Rochester, N. Y. and Trenton, N. J.

The conclusions from the report have a bearing on the broad subject of Health Insurance and are given here in full as follows:

"Again the evidence points favorably to our method of measuring the amount and kind of sickness prevailing in typical American communities. A little over 3 per cent of the population reached in North Carolina, at ages 15 and over, are constantly sick, and in 80.4 per cent the illness is serious enough to render them unable to work. This figure is somewhat higher than that found in Rochester, but not materially so. It is also higher than that reported by Billings in the Eleventh Census study (pp. 474 to 480, vol. 20, pt. 1, 1890) for a group of 12 Northeastern and Southern States; but, considering the different geographical areas covered and the changes that have occurred since 1890, the degree of correspondence between the two sets of figures may be considered as encouraging rather than otherwise. The internal evidence of the reliability of our figures, however, is the most striking. We have seen clearly the regular increase in the rate of sickness with age, as also the increased amount of sickness among females. Finally on the basis of the sickness rate (with disability) for ages 15 and over, we obtain the very interesting deduction that the average number of days of disability per annum, per capita of population, is 7.6 days for white males and 10.2 for white females. The corresponding figures for the colored race are 7.4 days for males and 11.3 for females. These results are in very close agreement with the best data available from official sources, both American and European, as to the number of days of disability per person of working age. The latest German figures covering the year 1913 give 8.8 days for males and 9.8 days for females insured in the sickness societies of that country. We may, therefore, conclude with reasonable certainty that from sickness of from 2½ to 3 per cent of the community at the working ages are constantly sick, involving a loss of about 9 working days per person per year in the entire population. This, we believe, is a safe measure of the loss to the community from this source."

THE GIST OF THE HEALTH INSURANCE BILL.

THE bill makes health insurance universal for all manual workers and for others earning less than $100 a month because experience elsewhere has shown that voluntary insurance will not reach the persons who most need its protection and that insurance must be obligatory if it is to render the large social service of which it is capable.

The benefits to be provided are medical, surgical and nursing attendance, including necessary hospital care, medicines and supplies; a cash benefit beginning on the fourth day of illness, equal to

two-thirds of wages and given for a maximum of twenty-six weeks in one year; and a funeral benefit of not more than $50.

The cost of these benefits and their administration, amounting to about 3 per cent of wages, is to be borne two-fifths by the employe, two-fifths by the employer, and one-fifth by the state. The employe is asked to contribute because he is to some degree responsible for his own ill health and because he receives the benefits. The contribution of the employer is justified on the ground that illness is, to a considerable extent, occupational in origin. The state's share in the joint contribution is justified by the present cost of sickness to the state and by its recognized responsibility for community action to prevent ill health. It is believed that this distribution of the cost will lead to cooperative action in "Health First" campaigns.

The administration is to be vested in mutual associations of employers and employes organized according to localities and trades, and managed jointly by employers and workers under the general supervision of a state social insurance commission.—*Amer. Assoc. for Labor Legislation.*

WISCONSIN AGAIN LEADING.

Wisconsin is the first state in the union to start a movement for the standardizing of medical inspection in the schools, both rural and city, by the adoption of uniform record cards. The need of such standardization has been urged by workers in many states but nothing definite has been done heretofore. This summer, in recognition of this need and in direct response to requests received from school authorities in several cities for assistance in preparing record cards, the Wisconsin Anti-Tuberculosis association prepared a complete set of blanks for use in the schools. A careful study was made of systems and record blanks in use in various cities in the east as well as in the middle west and every effort made to make the Wisconsin blanks practicable and comprehensive and at the same time as simple in form as possible. These cards are offered to school boards at the actual cost of printing in large quantities. The expense is thus much lower than if the individual schools printed their own records and the plan has the further advantage of uniformity and of accepted standards, a feature of great value to schools just starting the work. Kenosha, Antigo, Rhinelander, Rice Lake, Chippewa Falls, De Pere and Barron have already adopted the cards and other cities have signified their intention of doing so as soon as cards now in use are exhausted.—*Crusader, Oct., 1916.*

TO HOLD TUBERCULOSIS CLINIC.

Dr. Ethan Allen Gray of the Fresh Air Hospital, Chicago, who has done extensive work in the production of artificial pneumothorax as an adjunct in the treatment of tuberculosis, will give a demonstration of the work and review the literature on the subject at a tuberculosis clinic to be held at Muirdale, Saturday afternoon, Nov. 25, in connection with the annual meeting of the Wisconsin Anti-Tuberculosis Association. The clinic has been planned by the state association because of the great interest taken by the physicians of the state in the clinic conducted last June by Dr. F. M. Pottenger of Monrovia, Calif., under the joint auspices of the association, the Edward L. Trudeau Society and the joint medical societies. It is believed that there will be an equal interest in the pneumothorax demonstration especially as Dr. Gray will give considerable attention to outlining the type of cases in which it can be used with value.

The general convention sessions of the Wisconsin Anti-Tuberculosis Association will be held at the association headquarters, 471 Van Buren Street, Milwaukee, Friday, Nov. 24. The day's meetings will close with the annual dinner at which Dr. G. E. Seaman will preside as toastmaster. Saturday morning special conferences on sanatorium administration, public health nursing, and factory service work will be held at Muirdale. A one o'clock luncheon, served at cost price, will precede the afternoon clinic and the Trudeau Society will hold its monthly luncheon meeting in connection with the state meeting. Saturday evening there will be a Thanksgiving party at Muirdale, to which convention guests are invited.

It is believed that the meeting will be the largest in the history of the state association and one of greatest value to medical men.

BETTER HEALTH PURCHASEABLE.

Better health is to a striking extent a purchaseable commodity and benefit. Vast sums of money are expended from public and private funds for the amelioration of human suffering and disability in the attempt to salvage the wreckage resulting from unfavorable earlier conditions, which with foresight and at very moderate cost might in large measure have been prevented.

Our schools are spending millions in educating, or trying to educate, the children who are kept back by ill-health, when the expenditure of thousands in a judicious health program would produce an extraordinary saving in economy and efficiency. A dollar saved in a wise, constructive effort to conserve a child's health and general welfare will be more fruitful to the child and for the general good than a thousand times that sum delayed for twenty years. The principle of thrift in education finds its first and most vital application in the conservation and improvement of the health of children.—*T. D. Wood, Crusader, May,* 1916.

NEWS ITEMS AND PERSONALS

Dr. J. F. Mauerman, Monroe, has returned from the meeting of the North American Surgeons' Congress, which held its session in Philadelphia the week of Oct. 22.

Dr. B. Oberempt, Milwaukee, has returned from one of the war hospitals in Vienna, Austria.

Dr. C. F. Bowen, Richland Center, has left for a month's stay in California.

Drs. W. F. Whyte, C. A. Harper and J. M. Furstman, representing the Wisconsin State Board of Health, and Dr. W. D. Stovall, director of the State Laboratory of Hygiene, attended the recent meeting of the American Public Health Association at Cincinnati, Ohio.

Dr. G. A. Stannard, Sheboygan, is convalescing from a recent operation for appendicitis.

Dr. W. F. Zierath, Sheboygan Falls, underwent an operation for bloodpoisoning of the index finger of his right hand recently.

Drs. C. A. Evans, Horace M. Brown, John M. Beffel, Geo. C. Ruhland, and Max Bornstein, Milwaukee, and J. R. Longley, Fond du Lac, who recently took the examination to become surgeons for the army medical reserve corps, have been informed of their success in the tests. They will take the rank of first lieutenant.

Dr. William G. Doern, Milwaukee, was successful in his suit against Mrs. Sarah Webster of Dodgeville for $375 for balance claimed as due on a bill for $500 for services rendered the defendant's daughter a few years ago. The claim was disputed, but the jury gave a verdict for the full amount.

The suit of Emil Lueck, plaintiff vs. Dr. C. A. Cooper, Norwalk and Dr. S. D. Beebe, Sparta, was tried in Circuit Court the week of October 8th, and the jury very shortly found for the defendants. The suit was for $5,000 damages. The charge was amputation of a man's hand against his wishes.

Dr. Geo. D. Whiteside, Plover, is a candidate for the General Assembly.

On and after October 1st, the physicians of Delavan, owing to the increase in expenses, will raise their rates.

Langlade County Medical Society is the banner county medical society in the State Association, as every member is in excellent standing in both the county and state associations.

An eye, ear, nose and throat clinic for school children is the next link in the chain of clinics to be established at Madison, according to Dr. L. H. Prince, medical supervisor of schools.

Dr. J. Van de Erve, dean of the medical department of Marquette University, was elected president of the Wycliffe Club at its annual meeting in the Republican House, on October 24th.

The Milwaukee County Board of Administration has made a request for $225,000 in the 1916 budget to be used for erecting additions to county institutions. $110,000 is asked for the erection of a children's cottage and school and men's ward at Muirdale. The men's addition as planned would accommodate 100 patients. Two psychopathic wards for the county insane hospital, for which $85,000 is wanted, and a $30,000 addition to the chronic insane asylum is also asked.

The directors of Columbia Hospital, Milwaukee, have authorized the excavation of a basement, and the laying of a foundation for the first unit of the new hospital. The unit will cost $100,000. The group of hospital buildings will cost $500,000, and will be completed in about five years, as fast as the condition of the treasury warrants. A school for nurses, a social service department, and a disease prevention system will be features of the institution. There will be at least sixty-five beds in the first unit.

Hospital and sanitarium facilities will be included in the new $100,000 building of St. Mary's Hospital at Watertown. The new building will be four stories and a basement in height. It will be 208 by 50 feet in size. The right half of the building will be used as a hospital and the left as a sani-

tarium. The institution aims to serve Jefferson and Dodge Counties.

The dispensary clinical school of Marquette University, Milwaukee, was recently reopened. A new feature will be a charge of 10 cents a visit for those who can pay it. The dispensary is open from 10:45 A. M. to 2 P. M. daily.

The Plymouth Hospital and Training School, Plymouth, has been incorporated without capital stock. Its object is the care of sick and needy of Sheboygan County.

The Wisconsin Anti-Tuberculosis Association has started a crusade throughout the rural districts of the state. It has sent out a health wagon which carries sound health information, moving pictures and a health exhibit. The beginning was made in Walworth County in August. Rock County was the next to be invaded, and the work will be continued as late into the fall as the weather conditions will permit. The days are spent in travelling and visiting farm houses, and distributing literature, and in the evenings moving picture shows and lectures are given in the nearest town or village.

The necessity of medical inspection in parochial schools of Milwaukee was urged by Health Commissioner Ruhland in an address before the Merchants and Manufacturers Association on Oct. 11th. Dr. Ruhland declared himself in favor of a plan under which the city would provide it. He declared that a staff of five physicians and five nurses, costing about $10,000 per year, would be sufficient.

Legislation for the improvement of public health administration in Wisconsin will be proposed at the next session of the legislature. A measure of chief importance now under consideration aims to raise the qualifications and compensation of local health officers. It is proposed to enlarge the health units by permitting the grouping of adjacent counties into health districts, each under the supervision of a well qualified and properly paid public health expert. This plan is not designed to abolish the local health officer, but will permit adjacent towns and cities to join in the hiring of a competent man. A county health officer, while desirable to have in some ways, is not considered practicable, because such a health officer would be obliged to cover too much ground at the expence of efficiency.

The Second Annual Meeting of the National Committee for the Prevention of Blindness will be held on the afternoon of November 24th, at 4:30, in the Academy of Medicine, 17 West 43rd Street, New York City. President William Fellowes Morgan will preside, and it is anticipated that some of the honorary officers will be present. The principal address will be delivered by Dr. John McMullen, Surgeon, United States Public Health Service, whose eminent services in the work of stamping out trachoma in the Appalachian Mountains have become a matter of nation-wide interest. Dr. McMullen will use his lantern slides and describe the campaign which has been conducted under his immediate supervision.

According to the State Board of Health, baby blindness in Wisconsin has practically been stamped out since the law requiring that physicians report all cases of ophthalmia neonatorum to public authorities and appropriating funds for the purchase of silver nitrate went into effect. The 1913 legislature made an appropriation of $1,500 per year for the purchase and distribution of a one per cent solution of silver nitrate, and since that time but three cases have been recorded. In one case the child lost the sight of one eye, and in the other two cases a quite complete recovery was reported. All three physicians were prosecuted for failure to use the silver nitrate as the law requires.

Dr. G. I. Hogue, Chairman of the Committee on Prevention of Blindness for Wisconsin, has been administering to the Wisconsin troops on the Border. Dr. E. T. Lobedan, head of the Child Welfare Department and president of the Wisconsin Association for the Blind, is personally assuming the responsibility of every reported case of "Babies' sore eyes."

Fearing a nation wide spread of trachoma, the United States Public Health Service is contemplating the examination of all school children in the United States, particularly those in seaport cities. At present the contagion seems principally confined to the mountainous sections of Kentucky, West Virginia, Tennessee, Virginia, North Carolina and South Carolina, and the service is devot-

ing particular attention to the mountain children of these states. Great care on the part of immigration officials at New Fork is exercised in admitting to this country any one suffering from this disease.

According to figures made public at the United States Public Health Service, there were 28,262 cases of infantile paralysis in the United States between July 1 and September 25th of this year.

Legislation has recently been enacted which will provide for approximately 300 additional medical officers in the Medical Corps of the United States Navy. The pay ranges from $2,000 per year, with quarters or an allowance therefore, for assistant surgeons with the rank of Lieutenant, Junior Grade, to $8,000 with allowances upon attaining the grade of Medical Director with the Rank of Rear Admiral of the upper half. The examinations are held in several of the coast cities in the United States, both on the east coast and the west coast, and also at Chicago, Ill. Literature describing the Navy as a special field for medical work, and circulars of information for persons desiring to enter the Medical Corps, may be obtained by addressing the Surgeon General, United States Navy, Navy Department, Washington, D. C.

The Governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley, assisted by the attending staff, will give the eighteenth series of Clinical Lectures on Diseases of the Skin, in the Out-Patient Hall of the Hospital, on Wednesday afternoons, beginning November 1, 1916, at 4:15. The lectures will be free to the medical profession, on the presentation of their professional cards. Frederic Haas, Chairman Executive Committee.

MARRIAGES

Dr. William H. McDonald, Lake Geneva and Miss Alma E. Hall, Chicago, on October 18th.

DEATHS

Dr. Stanton Allen, for thirty years a practicing physician at Milwaukee, died on Oct. 18, 1916, at Hood River, Oregon, aged 58 years. He left Milwaukee about ten years ago. He was a graduate of Columbia University, New York.

Dr. Frances J. Bock, Lancaster, died on October 10, 1916, aged 43 years. Frances J. Bock was born in Lancaster in 1873. She was educated in the public schools of Lancaster, and then took up the study of medicine at Hahnemann Medical College, graduating in 1906. She had been in ill health the past three years. Dr. Bock was a member of Grant County and the State Medical Societies.

Dr. E. H. Grannis, Menomonie, died on October 15, 1916, of pernicious anaemia, aged 62 years. Edward H. Grannis was born in Morrisville, N. Y. on February 20, 1854. In 1875 he was graduated from Hahnemann Medical College, Chicago, and for two years thereafter practiced his profession in Chatfield, Minn. He came to Menomonie in 1877, and practiced there successfully ever since, although during the last few years he had not been active. Dr. Grannis served many years as surgeon of the Third Regiment, W. N. G., and for two years was surgeon general of Wisconsin. He was a member of Dunn County and the State Medical Societies.

Dr. W. D. Turvill, Madison, died suddenly on October 16th, 1916, of apoplexy, aged 66 years. William Daniel Turvill was born in Columbus, Ohio, December 3, 1850. Shortly after Dr. Turvill's birth the family removed to Madison. Dr. Turvill was a graduate of the University of Wisconsin with the class of 1873, and of the University's law department in 1874. He later took up the study of medicine. He was not actively engaged in practice.

Dr. James P. Connell, Fond du Lac, died suddenly on October 22, 1916, of heart disease, aged 54 years. Dr. Connell was born in the town of Meeme, Manitowoc County, February 22, 1862. He taught school for a couple of years, and later entered the office of Dr. D. W. Hayes at Manitowoc, where he took up the study of medicine. He studied at Northwestern University Medical School graduating in 1887. He first practiced at St. Cloud, coming to Fond du Lac in 1894. Dr. Connell was a member of Fond du Lac County and the State Medical Societies.

REMOVALS

Dr. Paul Dailey, Elcho to Milwaukee.

Dr. Harry Vedder, Edgar to Marshfield.

Dr. M. E. Holliday, Appleton to Oshkosh.

Dr. W. D. Harvie, Grand Rapids to Neenah.

Dr. F. H. Powers, Baraboo to Bucyrus, Ohio.

Dr. A. D. Campbell, Richland Center to Madison.

Dr. O. N. Mortensen, Green Bay to Grand Rapids.

Dr. C. H. Charles, Goodman to Antigo.

Dr. L. P. Gaillardet has located at Black River Falls.

Dr. G. W. Markley, Poplar Grove, has removed to Belvidere, where he will form a partnership with his brother, Dr. A. J. Markley.

Dr. A. S. Michalson of New Richmond and Dr. P. F. Quinn of Baldwin have made a deal whereby they trade offices and practices, Dr. Michalson going to Baldwin, and Dr. Quinn to New Richmond.

Dr. A. J. Chamberlin, a former resident of Bloomer, but who has been living in Ohio and Iowa for a number of years, has returned to Wisconsin, and is located at Cameron.

Dr. W. C. Maas of Milwaukee has purchased the office equipment and practice of the late Dr. Marsden of Rio, and will locate there.

ABSTRACTS

Scientific Researches Into the Causes of Alcoholism and Inebriety. One great fact has been established by accurate laboratory and clinical research, viz., that the physiological action of alcohol on the cell and tissue is that of an anaesthetic and depressant, and not a tonic or stimulant. This has been accepted by the profession generally, and while it revolutionizes the previous theories, explains in some degree why alcohol is so fascinating.

Beyond this, there is a vast range of causes producing alcoholism and inebriety that are practically unknown. All remedial and restorative efforts are based on the theory that alcohol is the special and particular cause of all the degenerations which follow from its use.

Careful studies of individual cases show this to be untrue; also that in many instances alcohol is only a symptom. It may be a complicating drug intensifying unknown conditions that were latent before. It may be a specific poison localizing in certain organs. It is also cumulative, and associated with the most complex neuroses.

The causes that impel men to drink have never been studied scientifically. The literature up to the present is a confusing mass of theories and opinions unverified.

In this unknown region there are innumerable questions like the following: Why are certain periods of life more favorable for the outbreak of the craze for alcohol than others? Why does the desire to drink break out suddenly in diverse conditions, and then subside from causes inadequate to explain the change? What is the explanation of the exact periodicity of these drink excesses that are as certain as the rise and fall of the tide? What are the causes in surroundings and conditions of living that provoke these paroxysms? Why do men drink after injuries, diseases, shocks, losses, disappointments, business reverses and great successes in life? What degenerations are transmitted from the parents to the children that create susceptibility or immunity to the effects of alcohol? Why are some persons able to drink in so-called moderation for years, and why do others quickly become diseased and die? Why do some men drink in early life, then abstain, and in middle or later life turn to alcohol again and drink until death? Why are some persons susceptible to the contagion of surroundings and companions, while others are immune? What physical and psychical causes produce the drink craze?

These are some of the unknown causes and conditions which have never been studied with scientific exactness. One of the most prominent and widely accepted explanations is the so-called moral cause. Physical conditions are considered results and not causes.

A Research Foundation has recently been organized at Hartford, Conn., for the purpose of making an exact scientific study of these questions. It will be endowed and become a permanent work. Preliminary studies have already begun, and practicing physicians from all parts of the country are appealed to for the records and histories of cases which will be compiled and tabulated for the purpose of determining the laws which control and govern them.

This is the first scientific effort to take up the subjects of alcoholism and inebriety and determine the causes which produce them outside of alcohol. Science has shown that these conditions are governed by exact physical and psychical laws, which if known and understood would indicate the most practical means and measures of relief.

The Foundation will be practically a laboratory or clearing house, where persons can come for examination, counsel and advice. To a large class of persons who want something more than pledges, appeals or sanatorium treatment, this will open a new field of means and measures for relief that will be most welcome.

Correspondence is earnestly solicited from the profession. T. D. Crothers, M. D., Hartford, Conn.

Extraction of Pieces of Copper with a Telephone Forceps. Weve, H. (From the eye clinic of Prof. C. von Hess in the University of München. Arch. f. Aug., 80, p. 259.) As the presence of pieces of copper in the interior of the eye will by their toxic influence without fail destroy sight and the number of injuries by copper in the present war has been considerable, any means of facilitating the extraction of non-magnetic metallic foreign bodies will be welcomed. This led the author to the construction of a telephone forceps which is described. It is based on the principle of Benn-Kaufmann, that the human body which is to be considered as a weak solution of sodium chloride, forms in contact with two different metals an element, the opening and closing of which elicits noises in a sensitive telephone. The forceps, manufactured by Frohnhaüser, München, consists of steel, copper-plated except at the points and inner surfaces of the grasping branches, so that an element is only created if the not copper plated parts touch the foreign body of copper. A short-circuit is prevented by a distance of 1/20 mm. remaining between the branches if the forceps is closed. The length of the grasping ends to be introduced into the eyeball is only 2.00 cm. The other end of the forceps is by very pliable cords, united in one, in connection with a telephone of 2,000 ohm resistance. The choice of entrance must of course be determined by very accurate localization by the ophthalmoscope or Roentgen rays. The forceps has the advantage that it needs to be introduced only once.

W. reports his preceding experiments on the influence, dependent upon the size of the pieces of copper and the concentration of the salt solution, on the telephonic proof. The human vitreous contains from 1.69 to 1.89 per cent solid substances, half of which consists of organic substances and especially of sodium chloride. Hence the experiments with from 0.5 to 0.9 per cent salt solutions were of most interest. A series of pieces of copper from 0.001 to 0.340 grams were examined. Minute pieces of copper from 0.001 to 0.002 in 0.5 per cent salt solution were ascertainable, although faintly, in 0.9 per cent so clearly that the method was practically useful. [We would suggest the attempt to increase the salt concentration of the vitreous by injecting a concentrated salt solution into the surroundings of the foreign body, if the reaction was negative. Reviewer.] Pieces of copper of 0.007 were ascertainable already in 0.5 per cent solutions. Experiments on perfectly fresh pigs' eyes entirely corresponded with W.'s expectations. The method may also be employed for other electric foreign bodies. For pieces of lead W. points out that a thin oxidized stratum entirely eliminates the telephonic noise, weak in itself.

On account of the importance of injuries by copper under the present conditions the author did not wish to wait with the publication of his method, until he would have had a series of personal experiences on patients.

C. Z.

In the clinical study of "sore throat," says Samuel Johnston, M. D., Baltimore (Proc. Amer. Laryn. Cong., 1916), we should scan the physiognomy of the patient, mark well any changes in the voice tones, and note the odor of the breath before entering into a more detailed examination of the case.

Among the conditions causing changes of the voice may be mentioned paralysis of the soft palate, defections in the conformation of the palatine arch, swollen tonsils, benign and malignant growth in the nasopharynx, laryngeal inflammations, paralyses, and so forth.

The odor of the breath may call attention to such conditions as uremic poisoning, pulmonary gangrene, ozena, necrosis of the nasal bones, and so forth. The need of careful inspection of the lips, gums, teeth, tongue, palate, pharynx, nasopharynx, lingual tonsils, epiglottis and larynx is emphasized.

In examining the nasopharynx an ulcer, usually of an infectious nature, is found here when least suspected, and in infectious diseases sore throat is by no means uncommon.

The writer's experience has proven that diseases of these regions differ in no way from similar pathologic changes in other parts of the body, and should receive the same therapeutic and surgical treatment.

Conservative and mild measures, however, should be the rule and guidance.

A recent investigation made by the U. S. Public Health Service in connection with studies of rural school children showed that 49.3 per cent had defective teeth, 21.1 per cent had two or more missing teeth, and only 16.9 per cent had had dental attention. Over 14 per cent never used a tooth brush, 58.2 per cent used one occasionally and only 27.4 per cent used one daily. Defective teeth reduce physical efficiency. Dirty, suppurating, snaggle-toothed mouths are responsible for many cases of heart disease, rheumatism, and other chronic affections. The children are not responsible for the neglected state of their teeth. The ignorant and careless parent is to blame for this condition—a condition which hampers mental and physical growth and puts a permanent handicap on our future citizens. School teachers can and are doing much in inculcating habits of personal cleanliness on the rural school child but this will fail of the highest accomplishment unless parents co-operate heartily and continuously. This is a duty which we owe our children.

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NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917.

The Wisconsin Medical Journal, Official Publication

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SOCIETY PROCEEDINGS

DODGE COUNTY

Dodge County Medical Society held a public meeting in the Armory at Beaver Dam, on the afternoon of October 7th. The object of the meeting was the discussion of public health and sanitation. Dr. Geo. P. Barth of Milwaukee addressed the meeting.

SHEBOYGAN COUNTY

Sheboygan County Medical Society met on October 11, 1916, at Sheboygan. The report of the special committee, composed of Drs. Otho Fiedler, William Gunther and Joseph Elfers, recommending that there be an appreciable raise in physicians' fees was accepted and adopted. The committee, which was appointed some time ago, investigated the situation in detail, and the recommendation for higher fees resulted. Eighteen physicians from various points in the county were present at the meeting.

WALWORTH COUNTY

Walworth County Medical Society held a public meeting at the Court House, Elkhorn, on Oct. 28, 1916, to discuss public school sanitation and hygiene. Miss Katherine Olmstead, Milwaukee, and Dr. L. H. Prince, Madison, both with the university extension work, were the principal speakers.

WASHINGTON COUNTY

Washington County Medical Society held its annual fall meeting, on Oct. 4th, at West Bend. The Ozaukee County Association was also well represented. About twenty-five doctors from the two counties attended. The meeting was addressed by Dr. Frank Smithies.

A meeting of the First District Tri-Medical Society was held on October 17, 1916, at Racine. Dr. Charles E. Paddock of Chicago addressed the meeting on "Anesthetics in Labor." About sixty physicians attended the meeting. Dr. E. A. Midgley, Whitewater, was elected president, and Dr. M. D. Cunningham, Lake Geneva, was elected secretary for the coming year. The meeting next year will be held in Walworth County, the place and date to be decided later by the new officers.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

NEW NURSING SERVICE IS AVAILABLE TO EVERY ONE.

The Milwaukee Visiting Nurse Association, wishes to extend its services to those persons able to pay for skilled nursing care, and yet not able or desirous of having a nurse resident in the home.

There are many times when the patient's physical condition does not require more than one or two hours trained care, some member of the family being able to minister to the patient during the remainder of the twenty-four. In view of this fact the Milwaukee Visiting Nurse Association is anxious to extend trained nursing service on the visit and hourly plan to all those needing only this limited service.

Charges for this service are most reasonable, making the service within the reach of all those needing it.

Visits must be arranged for during the day, through the office of the Visiting Nurse Association, 807-808 Merchants and Manufacturers Bank Building, by the attending physician, member of the family, or neighbor.

Although the Visiting Nurse Association has heretofore considered its work among the sick poor of the City to be its natural function, it is at present preparing to offer in addition to this, this new type of nursing service.

The Association is earnestly seeking the cooperation of physicians and of the people in making this new service effective, and invite both suggestions and criticism to that end.

KATE KOHLSAAT, R. N.

GRADING AND CLASSIFICATION OF NURSES.

The special committee of the American Hospital Association on grading and classification of nurses has published its report which is to be submitted to the next meeting of the Association in Philadelphia in 1917. This report which covers about 10,000 words is too long for publication here but some of the more important points can be given.

Boiled down, the report incorporates, in substance, the following, as the results of their investigations:

That with the present system of the training of nurses there is too large a proportion of one certain type or class of nurses and that large portions of the nursing field are being neglected. There are too many nurses in private practice who are "registered against" certain classes of cases. That there is a need for the less expensive worker who can combine the ordinary care of the sick with the

care of the home in cases where highly skilled nursing is not needed.

The committee finds that there is a general neglect to provide pupil nurses with practical experience in the nursing of acute contagious diseases with the result that a correspondingly large number of nurses are reluctant to respond to calls to such cases in the homes, and deplores the fact that untrained, incompetent women are obliged to assume such responsibilities which properly belong to graduate nurses. They also find that in the small communities too much stress has been placed on the number of beds in a hospital which desires to conduct a training school and not enough to the quality of actual nursing and instruction given. That in many of the smaller hospitals because of the individual instruction given each nurse, they are doing better work in the training of nurses for bedside nursing than seems to be possible in many of the large public institutions. That the distinctive needs of the smaller communities should be emphasized rather than the number of beds in the hospital. That inasmuch as the nurses trained in the larger centers do not commonly go to the smaller or isolated communities to practice, that the training of nurses in such communities to meet the local need, seems to be the only solution of the problem of skilled nursing in such places.

The committee finds the need for more specially-trained nurses, i. e., the tuberculosis nurse, mental nurse, maternity nurse, etc., and suggests that in view of this fact the general hospitals should provide limited experience in nursing these classes of patients, and also recommends that small special hospitals be encouraged to operate training schools and through affiliation supplement such training by a year of general training and experience. That one of the chief criticisms of graduate nurses is that they are unable to handle successfully, serious nervous cases or diseases in which the nervous element is prominent, in diseases which manifest themselves after middle life and in cases of long convalescence, which medical experts assert are increasing while the bacterial diseases are diminishing.

The committee reports at length on an experiment carried on in Detroit during a period of two years, when out of a group of 403 women who applied at one office to be sent into the sick room in the middle class homes, more than half of them were rejected probationers, their rejection often the result of character defects; some were women of immoral, dishonest character, but it was also proven that considerable numbers were faithful, reliable women eager for instruction, direction and assistance in their work. That steps should be taken to sort out the fit from the unfit and organize those who seem fit into a working corps whose efficiency could be developed and thus provide efficient nursing service for the average middle class home.

The committee thinks it desirable to endeavor to develop the efficiency of this class of nurses in the homes by class and bed-side teaching under supervision, instruction and general direction of a qualified graduate nurse backed by a responsible local organization. That they should not be led to believe they can graduate nor that they can finish any prescribed course in nursing and should not be given nursing certificates. That this class of workers should be developed for the two-fold purpose of the care of the sick in the home and the care of the home in sickness, but always with the assistance of and under the general direction of a graduate nurse and in connection with a responsible organization whose object is to serve the home nursing needs of the community in sickness. This plan would necessitate the establishment of a community or home nursing office to serve for a given territory and as a clearing house for several grades and kinds of workers. Such organization would not attempt to dispense charity but to furnish at cost such services as are needed and to furnish, when needed, a graduate nurse for service through the acute stage of a disease to be replaced by a less skilled worker when the highly skilled care is no longer needed. That this office should keep on its lists names and addresses of persons available to go into homes during sickness as helpers in different lines of work, such as cooking, washing, care of children, etc.

In response to requests for some guidance as to the instruction which should be given to household nurses or attendents the committee submits the following outline:

Etiquette and ethics of the sickroom. Germ theory and principles of asepsis. Methods of sterilization and disinfection of everyday sickroom utensils. Household hygiene and management of the sickroom. Personal hygiene with special reference to avoidance of infection. Care of bed, bed-making, bed-sores, etc. Making the best of house-

hold materials in sickness. Personal everyday care of the sick. Special methods of promoting the patient's comfort. Feeding the sick. Invalid cookery. Temperature, pulse and respiration. Observation of patient and note-taking. Baths, cleansing and to reduce fever. Home treatment—packs, hot and cold; enemata, douches, poultices, cold compresses, hot fomentations, sweat baths, care of ice caps, hot water bottles, etc. The giving of medicines. Ordinary care and feeding of infants. Ordinary care of sick children. Common household disinfectants, how to make and use them; precautions. Practical points on dealing with communicable diseases in the home. Bandaging. Household emergencies and minor wounds. Ordinary maternity nursing. Special medical cases and care of chronic invalids.

PERSONAL REQUIREMENTS.

A certificate of health; high moral character; sufficient education to read and write and keep intelligent notes of cases; recommendations from not less than two responsible citizens (not relatives), one of whom shall be a clergyman.

SUMMARY OF THE CONVENTION OF THE WISCONSIN ASSOCIATION OF GRADUATE NURSES.

BY MISS REGINE WHITE.

The convention of the Wisconsin Association of Graduate Nurses, held in Milwaukee, Oct. 22 to Oct. 24, had the largest number of nurses in attendance ever gathered for the event. Most parts of the state were represented.

All of the meetings were conducted at the Milwaukee County Nurses Club, 566 Van Buren Street. The club became popular for the comfort and ease it afforded, especially to nurses from outside the city. It filled a long hope and pipe dream on part of many. The club is equipped to serve as a center for nursing interests and nursing education in the state, and all the nurses are requested to avail themselves of this opportunity.

The excellent program for the occasion was undoubtedly helpful, together with that of the National Convention for the Study and Prevention of Infant Mortality that preceded the nurses' meeting and attracted nurses even from outside of Wisconsin.

The informal reception given for Miss Jane A. Delano, Chairman National Committee, Red Cross Nursing Service, Washington, D. C., Sunday afternoon, Oct. 22, was an event of great pleasure not alone to nurses but to others who came to meet Miss Delano, the great nurse, who is responsible for the best organization of Red Cross Nursing Service in the world. The plan of this work will be an everlasting monument to her.

Her evening address and Monday afternoon talk has cleared all sort of misunderstandings regarding Red Cross nurses in the United States, especially among the laity. Miss Delano has also explained the purpose of the Red Cross, namely, to serve as a national relief during times of disaster, and is the reserve body to the Army during times of war. Invocation was given by Rev. T. M. Schepherd.

For the benefit of superintendents of training schools, Miss Louise Powell, Superintendent of Nurses, University Hospital, University of Minnesota, Minneapolis, gave an address on the advantages of a Nurses Training School, the teaching of which is under supervision of a university, and the discussions, led by the Misses Richie, Neenah, and Casey, Milwaukee, brought out many forward strides toward a more systematic teaching of student nurses, both in their theoretical and practical work.

The nurses were honored to be welcomed by Gov. Phillip, who had set aside the necessary time from his busy campaign to appear in person and greet the convention.

Miss Good, president of the Association, in her address, enumerated the advanced plans for the future work of the Association, besides stating what was accomplished during the past year. She also gave a brief outline on what is expected of the nurses in the revision of the American Nurses Association under the National Charter that is at present before Congress.

Miss Minnie Ahrens, Chicago, addressed the meeting in explanation on reorganizing the nursing associations all over the state in county and district societies, in such a way as to make it possible to become automatically a member of state and national organizations, to meet the requirements of the American Nurses Association.

Miss Peterson, LaCrosse, read a splendid paper on Community Nursing, discussed by the Misses Kimball, Green Bay, and Kinney, Kenosha.

Miss Kelly, Public Health Department, Chicago, gave an interesting address on Public Health Nursing. The discussions by the Misses O'Keefe, Stevens Point, Van Kooy, Milwaukee, and Bill, Oshkosh, brought out many valuable suggestions on the subject.

Mr. Wicks, of the Westinghouse Lamp Factory, Milwaukee, spoke on "Women in Industrial Life." This paper was exceedingly interesting and will appear in full in a later issue. Discussions followed by Miss Tracy Copp, Industrial Commission, Miss Elizabeth Kelly, University Extension Division, and Miss Bertha Schulz, Industrial Nurse, Milwaukee.

Dr. L. M. Warfield, Milwaukee, gave a general talk on the nursing profession, and made mention of the various fields that have opened to nurses within the last few years. He touched on the shortage to meet the demand for private duty nursing.

The address on "Heredity and Health," by Prof. R. C. Mullenix, Lawrence College, Appleton, surely shattered many superstitious beliefs when he in his scientific and scholarly fashion placed the responsibility of perfect and defective existence of the human race to the proper sources.

The various round tables conducted, that of Superintendent of Nurses, by Miss Zuppan, LaCrosse, Public Health Nursing, by Mrs. Kohlsaat, Mrs. Bradshaw and Miss Olmsted, Milwaukee, and Private Duty, by Miss Grace Hastings, Fall River, were well attended and awakened a large interest in their respective discussions.

From the above program, one may readily conceive the rapid development of the nursing profession. Its broad scope increases proportionately to meet its new demands. The future adequate management of the State Association will find its possibility in sectional meetings as well as those of common interest to all.

The officers for the ensuing year are:

President, Miss Mary E. Good, Wauwatosa.
First Vice-President, Mrs. Northway, Kenosha.
Second Vice-President, Miss Regen, Madison.
Secretary, Miss Bertha Schultz, Milwaukee.
Treasurer, Miss Margaret Pakenham, Milwaukee.

NEWS ITEMS AND PERSONALS

The Wisconsin State Nurses Association recently became affiliated with the State Federation of Women's Clubs.

The Girls' Friendly Society of St. Paul's Cathedral, Milwaukee, has organized the first Red Cross class of the season with Miss Stella Mathews instructor.

The Milwaukee County Nurses Club plans to form a class in parliamentary law for the near future; the classes to be held at the Club House.

Miss Gertrude Sandburg, a graduate of Columbia Hospital Training School, Milwaukee, has been made Chief Surgical Nurse at that hospital, to succeed Miss Prouty, resigned.

Miss Nona Bartz of the Visiting Nurse staff of Milwaukee is doing industrial nursing with the Harsh & Edmunds Shoe Company.

The Cutler Hammer Mfg. Co. expect to employ an industrial nurse beginning the first of the year.

On Nov. 28th, the Milwaukee County Nurses Association will hold a bazaar at the Club House. First aid supplies for the home and all manner of articles for the comfort of the sick, convalescent and the well will be on sale, the proceeds to go to the support of the Club House.

Mr. Alexander Johnson, a member of the National Committee for care of the Feeble Minded, gave an illustrated talk to Milwaukee nurses at the Club House on Oct. 27th. His object is to interest Wisconsin people to make provision for the large number of these unfortunates waiting to be cared for in our wholly inadequate institutions.

Miss Mary C. Wheeler, Supt. of the Illinois Training School, Miss Minnie Ahrens, Supt. of the Child Welfare Society of Chicago, and Miss Mary Pfeffer of Melrose, Minn., attended the meetings of the Wisconsin State Nurses Association held in Milwaukee, Oct. 22 to 24. Miss Ahrens, a member of the Revision Committee for the American Nurses Association, explained the proposed plan of reorganization for that body which would necessitate the reorganization of all the State Societies.

Forty-two nurses took the State Board examination for registration in Milwaukee on October 17th and 18th. Graduates from Milwaukee, Madison, LaCrosse, Janesville, Beloit, Oshkosh and Kenosha training schools made up the number. Results of the examination are not yet known.

Miss Anna Rasmussen, former assistant superintendent of Johnston Emergency Hospital, Milwaukee, is taking a course in Public Health Nursing with the Instructive Visiting Nurses Association of Boston.

Miss Mathild Krueger, Rural Health Nurse, Dunn County, Wis., writes the following incidents in a day's work, in a letter to a friend: Started out at 7:30 so as to get to the first school at 9 A. M., as I had planned to visit four if possible. I found the first one closed and went to a neighbor to find out why and found the poor woman alone with four small children and one unborn, suffering from a gall-stone attack. I stayed and made her as comfortable as I could with heat and then went to the next neighbor and telephoned to her doctor. She promised she would go to the hospital to be operated on if I would go with her. She has had four attacks in the last two months. The school was closed because of infantile paralysis.

Exit the county nurse, and proceeds to the next school, also closed. Same reason. On to the third school, and the teacher tells me where the family lives who has infantile paralysis. Then I go on to the fourth school, give my talk, examine the children, and inspect the sanitary conditions of out-buildings. Now I give Ole (the horse) his lunch and a drink and drive to the family who has infantile paralysis. Here I find a sad state of affairs, three children, the oldest fourteen, next nine and eight, have it. There are three other children and one expected; the oldest girl paralyzed from hips down. The mother told me she had had a nurse for a week but when she found out she charged $45 per week she let her go. Now she has a woman helping her.

Then I came home and in the evening I drove to Irvington to speak at a community meeting and got home at 12 o'clock, and so it goes.

The first part of the week I was up in the northern part of the county where there are beautiful pine forests, but very poor land, consequently few people. One of the teachers told me she heard the wolves every morning on her way to school, and, by the way, she walks four miles twice a day.

It was pretty cold last week. One day I drove into a snow storm, a regular blizzard. I would like a pair of those felt shoes like the children in the Fresh Air School wear. Mr. S. has given me his sheepskin corduroy coat and a fine robe to use and today I bought a foot warmer, charcoal, you know. I notice Ole is getting a fine fur coat for the winter also.

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TRANSACTIONS
OF THE
SEVENTIETH ANNUAL MEETING
OF THE
STATE MEDICAL SOCIETY OF WISCONSIN
AT MADISON, OCT. 3, 4, 5 AND 6, 1916

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2nd Vice-Pres., M. S. HOSMER, Ashland.
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3rd District—F. T. NYE, Beloit.
4th District—WILSON CUNNINGHAM, Platteville.
5th District—W. F. ZIERATH, Sheboygan.
6th District—H. W. ABRAHAM, Appleton.
7th District—EDWARD EVANS, La Crosse.
8th District—T. J. REDELINGS, Marinette.
9th District—T. H. HAY, Stevens Point.
10th District—ROLLO CAIRNS, River Falls.
11th District—J. M. DODD, Ashland.
12th District—HOYT E. DEARHOLT, Milwaukee.

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A. H. LEVINGS, Milwaukee
J. F. PEMBER, Janesville
T. H. HAY, Stevens Point

ALTERNATES TO A. M. A.

M. E. CORBETT, Oshkosh
EDWARD EVANS, La Crosse
ROCK SLEYSTER, Waupun

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DELEGATE TO COUNCIL ON MEDICAL EDUCATION A. M. A.

A. J. PATEK, Milwaukee

DELEGATE TO NATIONAL LEGISLATIVE COUNCIL

G. WINDESHEIM, Kenosha

DIGEST OF PROCEEDINGS OF COUNTY SECRETARIES' MEETING, HELD OCTOBER 3, 1916, 2 P. M., IN SENATE CHAMBER, CAPITOL, MADISON, WISCONSIN.

Meeting called to order by the President.

Dr. J. M. Dodd, Ashland, was elected chairman of the meeting.

A paper on "A Plan for Demonstrations of the Newer and a Review of the Older Laboratory Work before County Societies" was read by Dr. J. M. Dodd, Ashland, in part as follows:

The laboratory in a physician's office is of limited use and unsatisfactory results. The best way to get satisfactory results from the laboratory is to have a technician, preferably a graduate in medicine, give his time to the work. Specialization cannot be carried too far where the field is large enough to afford sufficient work. It is practicable to have laboratory tests made by some one physician in a small community group. Educate the public to value the laboratory findings. Physicians should not fail to attach sufficient importance to them. Outlines a plan for making laboratory instruction a feature of County Society work.

Dr. Edward Evans, La Crosse, read a paper on "Suggested Outlines of a Year's Scientific Work for County Societies holding 4, 6 and 12 Meetings."

The doctor is primarily a professional man and not a business man. From the nature of the calling the physician is in a measure a trained servant of the state and in some degree responsible to the state for public service. This involves the highest duty and greatest privilege of educating the public in health matters. Outlines plan for societies holding quarterly meetings. Public health and education meetings should be held once a year. To be efficient, the medical profession must be trained not only individually but as a body.

Dr. Rock Sleyster addressed the meeting in place of Dr. H. W. Abraham, of Appleton, on "Plan for a Speakers' Bureau of Wisconsin's Full Time Medical Teachers Available for County Society Programs."

The matter has been taken up with Dr. Jermain, of Marquette University, and Dr. Bardeen, of the University of Wisconsin, of sending a list of the men available for county society programs. List read. The men doing medical work today, and who will be doing it for some time in the future have not had the advantages of the graduates today, and those of the future. Some of the work now being done should be expended on the men who are doing the work now. If the State Medical Society can be the means of ultimately carrying post-graduate work to the members, it will be accomplishing as great a work as the Society could possibly outline. Plan to be printed in pamphlet form and distributed to the different county medical societies in time for next year's program.

Dr. Hoyt E. Dearholt, Milwaukee, addressed the meeting on the subject "A Plan for a Series of Clinics to be Held in Various Parts of the State under the Auspices of the State and County Societies."

Dr. Dearholt: The problem of extension medical education should mean the sort of work that a man does along with his daily vocation. Enormous amounts of money are being spent in this state for educational purposes, but only recently have the public taken any interest in medical education, and none so far in the improvement of the practice of those already in the profession.

Outlined in diagrammatic form a plan of organization of the work embracing the educational resources of the State Society, the extension division, and through an administering agent disseminate information and arrange for securing clinics, laboratory demonstration, correspondence, class and study guides for the carrying out of a better program of extension medical education.

The foregoing papers were taken up and discussed by the meeting as follows:

Dr. T. J. Redelings, Marinette, inquired as to the expense to which the County Society would be subjected in calling upon the men mentioned in the list presented by Dr. Sleyster. He outlined the work of the State of Michigan in making a tuberculosis survey of the state, where an appropriation of $50,000 was made for such work. The work was carried on through a corps of visiting nurses and competent physicians elected by the state board of health. Clinics were held and the material was worked over with the object of determining not only what was the matter with the individual, but as a teaching opportunity. If the same discretion were used such a survey would be an excellent thing for the state of Wisconsin and furnish an excellent teaching opportunity for the medical profession.

Dr. Rock Sleyster, in reply, stated his belief that both universities would send men for the actual traveling expenses. There is no desire to commercialize the plan in any way. The universities are willing to cooperate in any way, and if a small fee would stimulate interest, that might be the plan to adopt.

Dr. C. W. Wilkosky, in discussion, said in part: Too many doctors are in practice for the money there is in it, and are, therefore, not progressive, and do not avail themselves of the opportunities presented by the meetings held. The result is that many times physicians are the laughing stock of the public owing to their inability to recognize and diagnose the cases which come to them. Medical men are negligent to their own loss in failing to keep up along educational lines.

Dr. Hastings, Menasha, in discussion, related a plan of printing tickets of admission to a public meeting, and having them distributed through the schools, two to each family, by means of which they were successful of securing an attendance of about 300, which he considered pretty good for that part of a meeting.

Dr. Hosmer, Ashland, told of the work of the Anti-Tuberculosis Society in Ashland, where a representative had been sent by that Society to stimulate interest and

conduct surveys in the county, and outlined a plan contemplated by Ashland, of having a nurse put in a month in stimulating interest in that vicinity by getting in with the various women societies and civic societies and then call for speakers on tuberculous matters, and thereby creating a public interest in these matters. The expenses of the plan to be paid out of the fund of the local anti-tuberculosis society from selling campaign seals.

Dr. F. T. Nye, of Beloit, stated that as a result of having a Visiting Nurses' Association, the Child Welfare Association had grown up, and finally a clinic established, the Visiting Nurses' Association being sponsor for the whole idea. The difficulty is in getting started.

At the conclusion of the discussion a motion was duly made, seconded and carried, that the secretary of the Society be instructed to bring before the council of the State Medical Society the proposition of securing an organizer through the University Extension Department.

Dr. W. F. Zierath, Sheboygan, read a paper on "What can be done to secure uniform equitable fees and their standardization."

Determine what constitutes a just and reasonable minimum income for physicians, and then adjust fee schedules accordingly. Physicians do not receive their just share of the wealth distributed as payment for services because of diffidence, and lack of aggressive initiative in insisting on proper distribution. Present fee schedules are a bad inheritance bequeathed by professional ancestors who knew even less about business than the present day physician.

Dr. M. R. Wilkinson, Oconomowoc, read a paper on "Mutual or other investments for physicians' savings."

Physicians are good earners as a rule, but lack the necessary knowledge of finance to make them good providers for the future. Avoid bad investments; go slowly, and take the usual rate of interest instead of the "get rich quick" schemes. Real estate mortgages, real estate near home, municipal and school bonds, passed upon by bankers or other experts, are good investments for the physician. Possibly something along the line of a loan and trust organization could safeguard investments if the Society wished to have same. Education along lines of finance is necessary for the physician.

Dr. F. T. Nye, Beloit, read a paper on "Would a plan for cooperative purchasing through the medium of the state society be feasible—barter and exchange."

He stated that it was against his best judgment to suggest that the Society try to finance any form of business or financial proposition for gain. A scientific body is absolutely more wholesome, more elevating and enduring if its purpose is kept at all times in view.

Dr. Rollo Cairns, River Falls, read a paper on "Would an old age and disability pension or an endowed home for aged and needy physicians be possible?"

He expressed the belief that it is practical for the Society to establish a fund for old age and disability pensions. Members of the society to voluntarily choose whether they are to participate in the fund or not. Those participating to pay regular assessments through county secretaries to the State Soceity, the money to be kept in a separate fund by the treasurer of the State Society, and properly invested. Disability annuities to be paid from this fund on recommendation of the applicant's county society, and the approval of a committee on annuities of the state society.

Dr. T. J. Redelings, Marinette, read a paper on "Ways and means of increasing the income of the state society or of establishing funds."

In past years recommendations have annually been made in the executive and legislative bodies of the Society to broaden the activity of the service of the Society. Judging the future by the past there will always be necessity for work along such lines, and to make provision to sustain such work.

Methods: First, raising annual dues and apportioning the excess to such trust funds as it is desired to develop, to be judicially invested for a period of years; second, voluntary contributions from members for specific funds; third, by bequests for specific purposes from well-to-do members of the profession; fourth, by the soliciting of bequests and donations from philanthropic individuals for the activities concerning the public, such as preventive medicine and public health. Constitutional enactment to provide the necessary details to safeguard funds and direct the activities for broadening the scope and usefulness of the work.

Dr. G. Windesheim, Kenosha, read a paper on "What more can we do to protect the public and the profession against fads, cults and irregular practitioners."

(Dr. Windesheim retained his paper, making the suggestion that it be not published. The President and Dr. H. E. Dearholt, Milwaukee, took the opposite view with reference to its publication.)

Dr. H. E. Dearholt, in discussion, said in part: With Dr. Redelings, I feel very strongly that the general public should be made to realize that the State Medical Society is as much its organization as it is the organization of the doctors. It is about the only form of educational institution we have so far used, and therefore it deserves the public support. The Medical Society should go before the general public for support and bequests. The library of the Boston Medical Society was built almost entirely by the contributions of people of Boston who were not physicians. But the proposition of an increase of dues of the Society for the purpose of accumulating reserves shows a distinct lack of faith in the future, to my mind. If we are to raise the dues, let it be for current expenses. If we spend the money to good purpose as we go along, we will have no difficulty in securing more funds. The strength of the Anti-Tuberculosis Association, to my mind, is due to the fact that we spend each year all the money that comes in, and the public comes right back and gives us more, because we have made good. Our present needs for expenditure are probably greater than those of the future will be.

Dr. S. S. Hall, Ripon, in discussion, said in part: "I want to express my satisfaction in having been present at the most interesting meeting that I ever attended of any branch of the State Society. There is in this plan of Dr. Dearholt, it seems to me, the essence of the great work that can be done for the people, and for the profession, in the immediate future.

Dr. Rollo Cairns, River Falls, in discussion, said in part: The question of cooperative purchasing has been before the Society a number of times, and before the House of Delegates, and has been more or less discussed, but has been passed, largely for lack of plan. I was in hopes that a feasible plan would be presented here today for cooperative purchasing. I feel that such a plan, rightly organized, would be one source of income to the Society, and a source of saving to the individual members of the Society. I believe if we had a purchasing department, with a business manager to look after the business affairs of the journal, and much of the other business organization of the State Society, it would be a good idea.

Secretary Rock Sleyster, Waupun, in discussion, said in part: Cooperative purchasing has been a hobby of mine for several years. I investigated the matter in relation to the purchase of books, and found that there could be a saving of from 20 to 25 per cent if the members would buy their books this way instead of buying them of agents, and the money used for society purposes. I am convinced that this would add a nice little revenue to what we already have, and would be one way of getting more money without raising our dues. I can see no objection to it from a professional standpoint.

The matter of election of officers was taken up, and a motion duly made, seconded and unanimously adopted that the present president, Dr. H. W. Morgenroth, of Oshkosh, and the present secretary, M. B. Glasier, Bloomington, be re-elected for one year.

On motion duly carried the meeting adjourned.

SCIENTIFIC SECTION.

DIGEST OF PROCEEDINGS OF THE SEVENTIETH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN, HELD IN THE ASSEMBLY CHAMBER, CAPITOL BUILDING, MADISON, WISCONSIN, OCTOBER 4, 5 AND 6, 1916.

Afternoon Session, Wednesday, Oct. 4, 1916, 2 P. M.

Meeting called to order by the President, L. F. Jermain, Milwaukee.

Invocation pronounced by Rev. George E. Hunt, Madison.

Gov. Emanuel L. Phillip was introduced to the Society by President Jermain and welcomed the Society on behalf of the people of the state to the Capitol. He said in part: I feel confident that your meetings will be of benefit to you, and whatever benefits you will in turn benefit the people in general. Great progress has been made in medicine and surgery, but still greater progress in the prevention of disease, and that is the thing that offers the greatest opportunity. The medical profession in the future will be of great aid to business, particularly in the great industries, in promoting greater physical efficiency.

Dr. M. R. Wilkinson, Oconomowoc, responded to the address of welcome. He said in part: The State Medical Society is primarily an institution for the uplifting of the medical profession of the state. The record now made at the Border shows that the profession of Wisconsin stands in the forefront of medical men of the United States. We would ask for more hearty cooperation from the people throughout the state in our endeavors to put forward legislation.

The report of the Committee on Arrangements was made by Dr. L. R. Head, Madison, outlining plans for the entertainment and comfort of the delegates during the convention.

The report of the Program Committee was presented by Dr. C. A. Evans, Milwaukee, in which he stated that the program was made short for the purpose of inviting full discussion of all papers read.

Dr. M. R. Wilkinson, Oconomowoc, introduced President L. F. Jermain, Milwaukee, who presented his annual address.

Dr. Karl Doege, Marshfield, read a paper on "Acute Appendicitis," covering the following:

"Too many cases are permitted to reach the suppurative stage. Cause of delayed diagnosis. History of appendicitis. Etiology. Pathology. Symptoms of various types of appendicitis. Differential diagnosis. Medical and surgical treatment. Education of the laity."

Dr. R. G. Sayle, Milwaukee, in discussion, said in part: The best results follow early good surgical treatment, which involves early diagnosis and prompt submission to treatment. The so-called Ochsner treatment, or mistreatment, is still a refuge for good practitioners. The operation is not to be classed as minor surgery.

Dr. Edward Evans, La Crosse, in discussion, said in part: After a third of a century appendicitis is still an acute problem, its gravity apparently little understood not only by the laity, but seemingly by a great number of the profession. The mortality is too high, and the complications following delayed operation have a very serious morbidity as well as a too high mortality percentage. The failure to make early diagnosis is due to mental laziness or cerebral inability, or something of that nature.

Dr. A. H. Levings, Milwaukee, in discussion, said in part: It is my impression that the mortality in acute appendicitis should be reduced to almost nothing. The diagnosis is at times most difficult. When diagnosis is made I always urge operation, and if people hesitate they do so on their own responsibility. If I see patient

in time I always advise to have the bowels thoroughly empty, for the reason that operation is much easier if you can get a partially collapsed intestine. The manner of incision is of but little moment.

Dr. T. W. Nuzum, Janesville, in discussion, said in part: The appendix is quite as capable of taking care of its bacteria as any part of the intestinal tract, if it is not obstructed. I regard appendicitis as always an obstructive disease.

Dr. F. Gregory Connell, Oshkosh, read a paper on "Chronic Appendicitis," covering the following:

"The treatment of chronic, like that of acute appendicitis, is settled; but the large number of unsatisfactory remote results following operation for so-called chronic appendicitis calls for a consideration of the subject, in the hope of arriving at more justification for the diagnosis of chronic appendicitis."

Dr. R. H. Jackson, Madison, through Dr. T. J. Redelings, who read his discussion, said in part: The surgeon who has through experience learned that there are many other conditions aside from an offending appendix which may cause pain and tenderness in the right lower quadrant of the abdomen is chary in his diagnosis and advice. Acute appendicitis may be looked upon as accident or errors of one's work, and are largely attributable to the localization of infection in an appendix which has been irregularly and incompletely obliterated previous to the acute infection.

Dr. A. A. Hoyer, in discussion, said in part: The conception of chronic appendicitis as a disease is most confusing; its classification as a disease is still more indefinite. The surgeon will hesitate to remove an appendix which has no pathology, and explore the abdomen for a definite and possible disease other than chronic appendicitis.

Dr. J. S. Evans, Madison, read a paper on "Appendicitis as a Focal Infection," covering the following:

"The relation of acute primary foci of infection to acute appendicitis; the apparent selective action of the infecting organism; the predisposing factors locally; the latent character of the secondary foci of infection in chronic appendicitis; the importance of precision in the diagnosis."

Dr. C. H. Bunting, in discussion, said in part: In appendicitis we have at least two possible routes of infection, through the blood serum and through the lumen. The hematogenous plays a much larger part in the production of acute appendicitis than has hitherto been thought. There is probably some change in the appendix, some lowering of resistance, probably by obstruction, which leads the organism to lodge in the appendix and produces the attack.

Dr. J. G. Taylor, Milwaukee, in discussion, said in part: It would be wise to make a special point of finding out whether previous acute infections had been present before the appendicitis. It would seem that the time of incidence is an important point, from the viewpoint that with the lowered virulence of the organism we have the lengthened time of attacks of appendicitis, and also that the character of the attacks are less virulent and with a lowered mortality.

Dr. L. M. Warfield, Milwaukee, in discussion, said in part: The value of the study carried on by Dr. Evans comes from the fact that nowhere in the state of Wisconsin is such opportunity to study in large groups, from incipiency to the end, the causes that might produce the various diseases, of which appendicitis is one. If in private practice attention was paid to all the conditions that might have occurred previous to the attack, it might be possible to verify the conclusions of Dr. Evans, and determine whether attacks of appendicitis follow waves of acute respiratory diseases.

Dr. Frank Smithies, Chicago, Ill., delivered an address on "Limitation of the X-ray method in the Diagnosis of Gastro-Intestinal Lesions," which was illustrated with lantern slides.

MORNING SESSION, OCTOBER 5, 1916, 9:30 A. M.

Meeting called to order by the President.

Dr. Chester M. Echols, Milwaukee, read a paper on "Some Observations upon Ectopic Pregnancy, Based upon Thirty-five Cases Treated by Operation," covering the following:

"Statistical study of the 35 cases herewith reported, as to age, symptoms, physical findings, before and during operation, previous and subsequent sexual history, etc. Diagnostic points. Current fallacies regarding ectopic pregnancy. Does it occur more frequently than formerly? Conclusions."

Dr. T. W. Tormey, Madison, in discussion, said in part: We must consider inflammatory conditions of the tubes mechanical factors and developmental defects. Some authorities claim that the gonococcus plays but a minor role, while abortion, which so frequently is followed by salpingitis of a varying grade, is more apt to be the major predisposing cause for this type of pregnancy. The menstrual history is all-important.

Dr. A. J. Puls, Milwaukee, in discussion, said in part: There seems to be three symptoms always present, or which follow closely upon one another in every case of ectopic gestation, (1) irregularity of the menstrual discharges; (2) pelvic pain, unusual to the patient; (3) tumor formation within the pelvic cavity. The vaginal operation is preferable in advance cases because of its conservative treatment of the diseased uterine appendage.

Dr. A. H. Levings, Milwaukee, in discussion, said in part: I think the treatment in these cases has been very greatly improved upon in the last few years. Drainage only does harm. Where there is hemorrhage in the abdomen or anywhere in the body, I believe it a first cardinal principle and true surgical procedure to arrest hemorrhage at the earliest possible moment.

Dr. R. G. Sayle, Milwaukee, in discussion, said in part: I strongly object to bi-manual examination in suspected tubal pregnancy, unless the patient is in the hospital where you can be with her very soon. As a rule the surgeon is not called during the trivial initial pains that may come from uterine contraction. The character of the abdominal tenderness on palpation is a valuable point in diagnosis.

Dr. C. M. Echols, Milwaukee, in closing, said in part: While recognizing the danger of rupturing the tube from examination through an assistant, I still feel that bi-manual examination with the trained two fingers is justified in every case. The risk of overlooking laparotomy sponges must always be borne in mind.

Dr. John L. Yates, Milwaukee, read a paper on "Treatment in Hodgkin's Disease Based on Eight Years' Experience," covering the following:

"Treatment, based upon a conception of the morbid physiology of the process already published, is essentially surgical. Cases divided into acute and chronic, and the chronic cases grouped according to Trousseau's classification for sake of clearness in discussion. Results indicate that the disease is not incurable and the earlier treatment is begun and the less acute the infection the greater the probability of lasting relief and the possibility of ultimate cure. Indications for and justification of treatment used, based upon fairly accurate records of 78 cases."

Dr. C. H. Bunting, Madison, in discussion, said in part: The most important lesson to be derived from the paper is that gland cases which are shown definitely not to be tuberculosis should not be neglected. Excluding tuberculosis and the very acute lymphatitis that occurs with acute infections, Hodgkin's Disease is the most common infection, causing enlargement of the lymphatic glands. The patient should be regarded as Hodgkin's disease if tuberculosis is excluded, until he is proved not to have the disease. Early diagnosis is the point of greatest importance.

Dr. H. M. Brown, Milwaukee, in discussion, said in part: The essential point in successful treatment is early diagnosis. The early symptoms are not of sufficient importance in the mind of the laity so that the patient reaches men familiar with the disease in its many forms until there has been so great invasion of the glands that surgical as well as X-ray treatment is beyond the stage where definite hope may be given. We must have from these men who have made the extensive investigations, a positive means of diagnosis which shall be available to all. Instruction of the public important.

Dr. L. M. Warfield, Milwaukee, in discussion, said in part: It is truly astounding how much material is removed from some of the patients, and wonderful to watch results in some of the cases. A blood picture and the interpretation of the blood smear is not easy, although not impossible to learn. The auscultatory sign over the manubrium is probably a little earlier than some pictures can be made to show.

Dr. O. H. Foerster, Milwaukee, in discussion, said in part: The object of X-ray treatment is to block the lymphatics and to destroy the lymph tissue. X-ray is only an adjunct to the treatment. With the Coolidge Tube and the perfected technique raying laterally so as to get under the sternum from both sides, we shall be able to reach the deep mediastinal areas.

Dr. John L. Yates, Milwaukee, in closing, said in part: It is most difficult to tell when the superficial glandular involvement has extended to the deep tissues. Up to the time Dr. Warfield made his observations as to auscultatory changes, the only reliance was placed upon the X-ray. Dr. Smith has also helped to develop a method whereby, by means of pictures taken on the bias, the mediastinal are brought so into relief that it is possible to make a diagnosis.

Dr. William Sharpe, New York City, delivered the Address in Surgery on "The Operation of Cranial Decompression for Certain Intracranial Conditions." Illustrated with Moving Pictures.

After the address, on motion of Dr. C. H. Lemon, Milwaukee, a vote of thanks was tendered to Dr. Sharpe for his most excellent paper.

Dr. F. J. Gaenslen, Milwaukee, read a paper on "Pott's Disease-Diagnosis and the Treatment by Bone Transplant Method," covering the following:

Points in diagnosis in various types. Differential diagnosis. Fixation of spine the great essential. Earlier methods of providing fixation. Later methods of operative fixation. Post-operative treatment. Complications. Prognosis. Summary of cases and end results. Operative fixation of spine for other conditions. Author's method of combined laminectomy and immediate fixation by bone graft in urgent cases of compression of cord.

Dr. Joseph Smith, Wausau, in discussion, said in part: I wish to emphasize one point in regard to the acute onset of some of these cases. Many cases are diagnosed and treated as rheumatism, because of the acute onset. The important thing in the paper is the shortened duration of treatment by this method as compared with the older conservative methods of fixation, extension, etc. It would be of great interest to know how much this method of treatment has shortened the time of the cure.

Dr. J. A. Jackson, Jr., Madison, asked the question how long, if the cases were put in a cast at the time of operation, they were kept in that cast before putting on the brace.

Dr. L. F. Jermain, Milwaukee, asked if spinal anesthesia was used in these cases.

Dr. Gaenslen, in closing, said in part: The warning sent out by men in the East to continue the brace fixation for a long time after operation has been followed. As a rule I insist upon careful treatment for the tuberculous condition in general, believing that we must build up the general health of the patient just as in case of tuberculosis of the lungs. The time was probably shortened by half. Plaster cast immediately after operation

used in only a few cases. The recumbent position of the abdomen, which allows inspection of the wound at an early date, is the position of choice. Spinal anesthesia has not been used in these cases. Anesthesia used in all cases.

Dr. L. M. Warfield, Milwaukee, read a paper on "Blood Group Determination for Transfusion," covering the following:

Brief statement of Moss's original work. Brem's modification of the technique. Methods of collecting blood from donor, sodium citrate and defibrinating. General description of technique for transfusion. Obvious advantages of method.

Dr. J. F. Schneider, Oshkosh, in discussion, said in part: Blood transfusion is now an established procedure in the treatment of various diseases. When indicated as a life saving measure it should be given as expeditiously as possible. If transfusions are done promiscuously, results will often be alarming and sometimes disastrous. The method outlined by Dr. Warfield makes the technique for determining group reaction a simple procedure.

Dr. C. R. Bardeen, Madison, read a paper on "The Practical Aspects of Recent Work on the Topographical Anatomy of the Heart," covering the following:

The heart varies in position, size and shape with change of posture, being considerably larger in the lying than in the standing position. In making a physical examination it is important to take into account the normal changes in the heart due to respiration or posture, as well as abnormal conditions due to disease.

Dr. J. A. E. Eyster, Madison, read a paper on "The Regulation of the Heart in Health and Disease," covering the following:

"The important problem in every case of heart disease is in how far the efficiency of the heart as a pump is diminished. The decrease in efficiency may be due to (1) leakage of valves, (2) insufficiency of the muscle or (3) disturbance of the rhythm or sequence of beat in the different chambers. Frequently these different factors are combined. It is the purpose of the paper to discuss these factors and the methods used for determining the extent of cardiac insufficiency."

Dr. A. J. Patek, Milwaukee, read a paper on "Some Facts having a Practical Bearing upon the Treatment of Heart Disease," covering the following:

"In the therapy of heart disease it is of fundamental importance to consider primarily the condition of the myocardium. The necessity of estimating the diastolic as well as systolic pressure is emphasized. Case histories cited exemplifying this. Mention is made of the part played by splanchnic engorgement—as a result of overfeeding and the lack of exercise—in the causation of cardio-renal disease, and attention is called to the conservative action of the liver, and spleen in failure of cardiac compensation. A few suggestions as to treatment."

Dr. Thomas Willett, West Allis, in discussion, said in part: The disturbances and conductivity of the heart are very difficult clinically to recognize, without special apparatus. Hospitals should be fitted out with instruments and apparatus for the use of physicians in diagnosis, the same as in surgical instruments. Notwithstanding the large amount of work that has been done on the heart, I feel that there is still an enormous amount to be done.

Dr. W. F. Zierath, Sheboygan, in discussion, said in part: I have purchased a coil for use in the office for various purposes, and made it a routine to examine every heart case with the fluroscope instead of depending on percussion, and have found more certainty in checking up results in determining the degree of enlargement and hypertrophy in the heart. Every physician should own an X-ray apparatus. Blood pressure is a physical finding and should be grouped with the other physical findings in the case, without too much emphasis being put upon blood pressure.

Dr. O. E. Lademan, Milwaukee, in discussion, said in part: It is true the heart is not the only factor in maintaining circulatory equilibrium, yet on the other hand in order to successfully re-establish a broken compensation, all agents must primarily be directed toward increasing cardiac tonicity. Nature has supplied the heart with a functionating capacity far in excess of the ordinary demands, but we have no accurate means at our disposal to determine the degree of this reserve force. From both a therapeutic and clinical viewpoint it is well to classify cases of cardiac decompensation into relative and absolute.

Dr. L. M. Warfield, in discussion, said in part: I believe the more attention we pay to the pulse pressure, the more we will be able to understand some of the curious anomalies that we come across from day to day in our practice. In the classification of certain high blood pressure cases I think we can separate out three rather distinct groups, the arterio-sclerotic, the essentially hypertension cases and the chronic interstitial type. Examination by the fluoroscope is not of very great value because of the entirely false notion given of the size of the heart. The more skillful one gets in percussion, the better he can outline the heart.

Dr. Axtell, Superior, in discussion, said in part: You cannot possibly get a good idea of the size and shape of the heart by the ordinary fluoroscope examination, but by the orthodiagraphic method you can get the size and shape exactly in any position that you want.

Dr. C. R. Bardeen, in closing, said in part: Where it is impossible to get any accurate idea of the size of the heart by the ordinary fluoroscopic method, I think most physicians can learn a good deal about the activity and general relations of the heart from such examination, and by experience would get something that would add to the knowledge they obtain through percussion, auscultation, and the ordinary methods.

A short digest of the proceedings of the House of Delegates was read by Secretary Sleyster, and following the announcement of the election of officers the President called upon Dr. Hoyt E. Dearholt, Milwaukee, the President Elect for 1917, to speak to the delegates present. Dr. Dearholt declared himself as being tremendously impressed with the high honor and distinction of being elected President of the Society, and expressed the belief that, while none the less gratified personally, the honor was given to the work with which he had been so closely identified, that of the Anti-Tuberculosis Association, and of the Extension Division of the University of Wisconsin. He stated that he realized the obligations imposed upon a man so signally honored, and would work hard to try and live up to those obligations.

Dr. F. W. Peabody, Boston, Mass., delivered the Address in Medicine, covering "Recent Advances in the Study of Heart Disease and their Significance to the General Practitioner," at the conclusion of which a cordial vote of thanks was extended by the Society to Dr. Peabody for his very interesting address.

SESSION FRIDAY MORNING, OCTOBER 6, 1916.

Meeting called to order by the President.

Dr. A. L. Kastner, Milwaukee, read a paper on "The Artificial Feeding of Infants," covering the following:

"The necessity for and limitation of so-called 'methods' and 'rules.' The tentative and the developed formula. Value of considering both percentages and calories. Cows' milk—boiled or raw? Malt soup. Protein milk. Early use of cereals. The study of stools."

Dr. L. Boorse, Milwaukee, in discussion, said in part: Artificial feeding of infants is one of the most difficult problems in the whole domain of pediatrics. The primary importance in infant feeding is to have a definite, clear knowledge of the food products, to have a clear understanding of their application in the feeding, the nutritive value to the child, and to be able to determine the requirements of the child, and to modify the milk to attain a certain food value desired.

Dr. W. Campbell, Menominee Falls, in discussion, said in part: Laying down rules for scientific feeding of infants does not mean much to the general practitioner, because you cannot prepare milk or see that the surroundings are proper, the environments right, the test correct, or the milk clean.

Dr. Philip Rogers, Milwaukee, cited a case showing that after scientific feeding had failed entirely, eight different kinds of feeding, no two alike, resulted in a steady gain in the child.

Dr. Kastner, in closing, said in part: It is a great mistake to say what one should do all the time in every case. You cannot confine yourself to one thing in infant feeding. It has not been settled up to the present time that milk is an inadequate food. Thousands of babies in France and Germany and continental countries have been fed on boiled milk without developing scurvy and so on. Boiling helps where there is distinct evidence of casein indigestion.

Dr. A. W. Myers, Milwaukee, read a paper on "Pneumonia in Children," covering the following:

"Types of the disease found. Frequency and severity of the different types. The diagnosis of pneumonia in children and its peculiarities and difficulties. The management of pneumonia in children."

Dr. T. J. Redelings, Marinette, in discussion, said in part: Our efforts in the treatment of pneumonia are likely to be productive of harm unless we are forearmed with the knowledge of the specific cause in the particular case, and have some agent with which to combat that cause. Two important factors for guidance are temperature and respiration. I have used both heat and cold as a factor in treatment and been unable to chose between them, fresh air, moderated in cold weather, is very desirable for the pneumonic patient.

Dr. M. R. Wilkinson, Oconomowoc, in discussion, said in part: Apparently the mortality is not so great in the country and in the smaller towns as it is in the larger cities, a situation which should be investigated and reported upon. Repeated examinations are to be discouraged. It is impossible to give the best care without the assistance of a trained nurse. There is decided weakening of the heart in allowing a temperature of 104 or 105 to persist for any great length of time, and it can be controlled and gradually reduced by tepid baths. Supportive treatment, the watching of the gastro-intestinal tract, and keeping up nourishment of the individual aids recovery more than any specific treatment.

Dr. L. Boorse, Milwaukee, in discussion, said in part: As to statistics, I think bronchial pneumonia occurs more frequently in children under two years of age than the lobar type. I want to condemn the method of using heavy poultices, particularly antiphlogistin. The virtue of fresh air is due to the moving fresh air more than to extreme cold.

Dr. C. S. Sheldon, Madison, in discussion, said in part: Early diagnosis is essential. If we use common sense in treating the patient, without endeavoring to be too scientific, the prognosis is generally favorable. We cannot too greatly emphasize the treatment of the digestive organs. The withdrawal of food to a large extent is absolutely necessary. We are dealing with an infection, and all causes of infection should be reduced to a minimum. I have used the warm water pack, and invariably found benefit from it.

Dr. L. M. Warfield, Milwaukee, in discussion, said in part: It would be very bad practice not to examine the cases from day to day. The prognostic value, especially in children, and the early recognition of complications, such as the onset of empyema, are of great moment, and the little disturbance caused will be more than compensated by the actual knowledge obtained. Pneumonia

patients die from two general causes, toxemia and acute cardiac dilatation, and I think the use of a stomach tube in order to relieve these cases of acute stomach dilatation is a matter that should be given more particular attention and investigation.

Dr. J. F. Riordan, Berlin, in discussion, said in part: There is good reason for giving sodium bicarbonate, as the lung in pneumonia is of acid reaction. I believe the benefits derived from cold air are first, that it is sedative, and secondly antipyretic. I think it would be wrong not to examine our patients, using good judgment, because of the value of prognosis and to detect complications. We must watch the heart.

Dr. A. B. Myers, in closing, said in part: Watching patients has given the impression that they are decidedly more comfortable in the cold air, and I believe the cold air distinctly desirable except in a very small minority of cases. I did not wish to convey the idea that the child should not be examined. The pneumonia patient needs sleep and rest and should not be disturbed with unnecessary frequency, but a careful examination of the chest and heart seems to me perfectly possible without unreasonable disturbance, and is a distinct advantage in determining the condition of the heart and detecting the appearance of empyema and other complications. I think the question of lower mortality in pneumonia in the country is a very interesting subject for study.

Dorothy Reed Mendenhall, Madison, read a paper on "Prenatal and Natal Conditions in Wisconsin," covering the following:

"This paper will give an analysis of existing conditions in Wisconsin which influence the maternal and infant death rate, with suggestions as to what changes are most indicated. The relative number of infants delivered by physicians, by midwives and by unskilled persons in Wisconsin in the year 1915 will be tabulated from the records of the State Board of Health. Charts will be presented showing the number of infants dying in Wisconsin in 1915, still born, the first day, the first week, and the first month of life, with the proportion dying from prenatal and natal causes. The relative urban and rural death rates for all causes connected with maternity, and the death rate from puerperal causes and puerperal sepsis in Wisconsin and in the United States during the last decade will be considered. Discussion bearing on the obstetrical situation in Wisconsin will follow:

Dr. Hoyt E. Dearholt, Milwaukee, in discussion, said in part: The Anti-Tuberculosis Association has been giving special attention to this subject, and has conducted statistical studies in certain sections, and our findings in general corroborate those of Dr. Mendenhall. We can perhaps by organization of the county hospitals, with visiting nurses going out from there, carrying information by word of mouth, and by careful attention to the pre-natal care of the mother, good obstetrical care, and by giving the everyday cooking variety of knowledge concerning feeding of babies, cut down the death rate considerably.

Dr. John M. Beffel, Milwaukee, in discussion, said in part: Most of us have been startled by the general statement that the maternal death rate is rather in inverse proportion than direct proportion to the number of mid-wives. If the maternal death rate is no higher among mid-wives than among physicians, some other element than education enters into the question. The physician must be more conscientious in his handling of the patient. There is no reason why a girl who may be pregnant out of wedlock should be carelessly cared for. Without question it is a matter of careless medical work. Standards have been established of accurate, sound obstetrical work. The average rate is in the neighborhood of five deaths per ten thousand cases in this country. if the death rate in any locality is above that, it is time to find the reason.

Dr. J. J. Seelman, Milwaukee, asked as to the status as a rule of the women confined by midwives, and the class as a rule confined by physicians, and gave it as his experience that the class of women confined in foreign settlements were usually natural births, whereas confinements among the women of the better class, generally handled by physicians rather than midwives frequently require the application of forceps and surgical interference. This is an element which may be existing, and must be determined before the statistics can be of value.

Dr. L. R. Head, Madison, in discussion, said in part; I believe the maternal death rate in Wisconsin is more likely to be due to lack of nursing after delivery than to carelessness on the part of the physician. Where relatives and friends take care of the patient you will find a great amount of infection after delivery. I believe a system of community nurses would lessen the maternal death rate more than anything else. The urine should be examined at least once a week.

Dr. Dorothy Reed Mendenhall, in closing, said in part: There was no attempt made to decide the status of the women confined by midwives and those confined by physicians. I think conditions in the rural districts show up worse than in the cities, both as to maternal and infant mortality. It is a point that should be investigated.

Dr. Edward Evans, La Crosse, moved that a rising vote of thanks be tendered to Dr. Mendenhall for the work she had done on this important subject, and for the splendid paper presented, which motion was unanimously carried.

Dr. D. W. Stovall, Madison, delivered a paper on "Application of Laboratory Methods to Clinical Diagnosis," illustrated with Lantern Slides, covering the following:

"In securing laboratory aid every effort must be made to secure proper transportation of the specimen. This includes collection of specimen, the container in which it is collected, and the way in which it is forwarded. Slightest contamination may so spoil specimen that it cannot be used. Proper preservation of certain specimens. Interpretation of laboratory results. Clinical and

laboratory diagnosis should be considered together. Impossibility of making an immediate diagnosis. Advantages to physicians near municipal and hospital laboratories. Specimens should be prepared in such a way as to offer advantageous examination, for every examination desired has a different technique."

President Jermain took occasion to thank the members of the Society for the splendid support given him, also the Committee on Arrangements, Dr. Head, and the General Chairman of the Arrangement Committee, and the Committee on Program, after which the meeting adjourned to attend the luncheon at Mendota, followed by a clinic and laboratory demonstrations.

MINUTES OF MEETING OF HOUSE OF DELEGATES TUESDAY, OCTOBER 3, 1916, 8 P. M.

Meeting called to order by the President.

The roll call by the Secretary showed a quorum present.

On motion duly seconded, amended and carried as amended, the reading of the reports as printed was dispensed with.

The report of the Committee on Public Policy and Legislation was presented by the Chairman, Dr. J. P. McMahon, and on motion duly seconded and carried was accepted and adopted.

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

To the House of Delegates of the State Medical Society of Wisconsin:

The Committee on Public Policy and Legislation has had no meeting since the last annual session, therefore, it has nothing in the nature of unrecorded history to report.

The slightest amount of retrospection, however, on the part of the members of the committee brings forth the anomalies and inconsistencies which were written into the medical practice act passed during the last session of the legislature. These anomalies and inconsistencies render the act so far from being ideal when viewed from the interests of the public whom it is supposed to protect that an attempt should be made in the not distant future to improve it. As to whether such attempt should be undertaken by the Society during the coming session is a question for consideration by the House of Delegates.

COMPULSORY HEALTH INSURANCE.

Perspicuously and prospectively the problem of HEALTH INSURANCE, which has engaged the studious attention of the Council on Health and Public Instruction of the American Medical Association and the American Association for Labor Legislation during the last three years, properly and quite timely appears upon the local horizon for consideration, intensive study, constructive criticism and co-operative furtherance. The problem is one of safeguarding the health of laborers, and preventing accidents among them; in fact, caring for all those dependent upon a minimum wage; and providing both these classes and the members of their families with efficient medical and surgical services for such honorari as they can reasonably afford. The plan proposed is to distribute the cost among employer, employee and the state. The subject is considered a most important and necessary step in social legislation, and it is a formidable one. As suggested above, it demands intensive study by a committee of medical men who will take an interest in it. The matter of drafting and securing the passage of a proper bill and the co-operation required from the medical profession to place any act which may be passed in successful operation will extend over a period of from five to ten years. In view of these and other facts it is the opinion of the majority of your committee that the task should be assigned to a permanent standing committee to be known as the *Committee on Health Insurance* and that the members of such committee should be so located geographically as to permit frequent sessions with a minimum of personal inconvenience, loss of time and expense. Proceeding upon this theory and in order to provide for the presentation to the House of Delegates of such additional information on this subject as is necessary to afford a basis for intelligent discussion, the undersigned suggested to the president the advisability of appointing a tentative committee to make a preliminary study of the subject and a superficial survey of local sick benefit and medical relief agencies and to present a brief outline of the whole question to the delegates, or if advisable, to the entire membership in attendance at one of the general sessions. This suggestion, after having been considered by the president of the society and by the chairman of the council, was adopted, the committee was appointed, and the result of their advance labor will be summarized and presented when and where the House of Delegates elect.

The personnel of the committee follows: H. E. Dearholt, Milwaukee, Chairman; A. W. Gray, Milwaukee; C. H. Lemon, Milwaukee; G. E. Seaman, Milwaukee; M. R. Wilkinson, Oconomowoc; G. E. Windesheim, Kenosha; W. F. Zierath, Sheboygan.

Delegates who care to study the question of Compulsory Health Insurance before the meeting will find Alexander R. Lambert's report of the Judicial Council to the 1915 session of the American Medical Association discussing Workmen's Compensation Laws, European Social Insurance, Accident Insurance, Compulsory Sickness Insurance, Old Age Insurance, Widow's and Orphan's Insurance and Maternity Insurance on page 74 of the July 3rd, 1915, issue of the Journal of the American Medical Association a report by the same author as chairman of the sub-committee on *Social Insurance* of the Council on Health and Public Instruction made to the 1916 session of the American Medical Association may be found on page 1951 of the July, 1916, issue of the Association's Journal—and a discussion on "The Socialization of Medicine," by W. F. Zierath, on page

306 of the January, 1915, issue of the Wisconsin Medical Journal. In addition to the above references, a copy of a Tentative Draft of an Health Insurance Act, prepared by the Committee on Social Insurance of the American Association for Labor Legislation, will be forwarded with the Hand Book for the House of Delegates.

WISCONSIN MEDICINE.

ON THE MEXICAN BORDER.

On the call of the President, June 19, 1916, Wisconsin mobilized more than five thousand State Troops, consisting of three regiments of infantry, one battery of artillery, two troops of cavalry, one field hospital, and the necessary detachment of sanitary troops. These soldiers were mobilized at Camp Douglas and subsequently transported to Camp Wilson, Texas. Medical men should be particularly interested in the medical and health problems involved in a military movement, and Wisconsin in particular should be proud of the way the medical corps of the Wisconsin troops handled their problem.

Under instructions from the War Department, the men were all physically examined and for the most part the rules governing the physical examinations of a recruit for the United States army were applied. The physical examinations were made under the supervision of Colonel James R. Kennedy, Medical Corps, U. S. Army, assisted by the Medical Officers of the National Guard and four officers of the Medical Reserve Corps. Sixteen per cent of the men examined were rejected for various physical reasons, principally under weight, hernia, defects of vision and poor physical development, considering the fact that a much larger percentage than this is usually rejected at the recruiting stations of the United States army, and considering also the short time available for the work, this is an exceedingly good showing.

The sick rate during the mobilization camp was about one-half of one per cent. This is indeed remarkable, and shows that the now well recognized rules of military hygiene were strictly applied. The good work done at the mobilization camp is bearing fruit as is evidenced by the remarkably low sick rate in the Wisconsin command on the border, where, according to the reports of the War Department, the Wisconsin troops are at the top in respect to sanitary administration and sanitary results. The men were all vaccinated for typhoid and small-pox before leaving the camp, and a fully manned and equipped Field Hospital of two hundred and sixteen beds was sent out, in addition to this each military unit was fully supplied with medical officers, men and equipment.

For several years the Medical Corps of the Wisconsin National Guard has stood in the records of the War Department at the head of the list in efficiency, and the credit for this showing is due to the conscientious work of its Medical Officers. The following list of officers, practically all of whom are members of this society, were mustered into the service and are now doing duty with the troops:

Major Gilbert E. Seaman, Chief Surgeon.
Major J. W. Frew, Surgeon, 1st Infantry.
Major J. R. Scott, Surgeon, 2nd Infantry.
Major L. A. Moore, Surgeon, 3rd Infantry.
Major Charles H. Stoddard, Field Hospital.
Captain George W. Neilson, Field Hospital and Battery A.
Captain George H. Scheer, 2nd Infantry.
Captain G. I. Hogue, Field Hospital and Troop A.
Lieutenant C. J. Kenney, Field Hospital.
Lieutenant Robert L. Williams, Assistant to Chief Surgeon.
Lieutenant Dirk Bruins, 1st Infantry.
Lieutenant Robert H. Gray, 3rd Infantry.
Lieutenant B. B. Rowley, 3rd Infantry.
Lieutenant Jesse R. Bryant, 3rd Infantry.
Lieutenant William C. Watkins, 2nd Infantry.
Lieutenant Robert W. Blumenthal, 1st Infantry.
Lieutenant Arthur A. Mitten, Field Hospital.
Lieutenant William N. Moore, 2nd Infantry.
Lieutenant Herbert Graebner, Field Hospital.
Lieutenant John Armitage, 1st Infantry.

Since going south, Major J. W. Frew has been assigned to duty as assistant to the Chief Surgeon of the division, a well merited recognition of the ability of Major Frew as a medical officer.

Camp Wilson, Texas.
November 14th, 1916.

DEAR DOCTOR:—

Our Texas friends say that we are having unusual weather today, and that it seldom is as cold as it is at present, etc., *but* when it is necessary to break the ice in order to get water out of the pail for a morning's wash, then the "sunny South" seems more like home. Yesterday and today have been cold ones, and it was necessary to postpone the Divisional Medical Department maneuvers, which were to have been started this morning at Leon Springs, until the weather becomes more settled and somewhat warmer. There will be five complete (war strength) Regimental Sanitary Units, four Ambulance Companies, four Field Hospitals, beside the personnel required to care for the 7th Field Artillery and the 16th Cavalry. All the Sanitary Units will march to Leon Springs, in heavy marching order, and the work there will be conducted as in actual service.

The Infantry, Artillery and Cavalry will engage in battle (using blanks to make it more realistic), having been tagged with a Diagnosis Tag (as enclosed) previously, with only the diagnosis of the injury written on the tag, and it will be our duty to find these cases, day or night, and render assistance just as would be done if the hypothetical cases were real. Cases requirng litter transportation will be littered, and any soldier who permits a transportation case to walk will have charges preferred against him. Dressings and splints (improvised) will be applied as though the injuries were real, the observers keeping watch of the manner in which this work is done, mostly by the enlisted men of the Sanitary units. Regimental aid stations, dressing stations, field hospitals, etc., will be made use of, as well

as the ambulance companies for transportation. We all expect a very interesting, as well as instructive two weeks, especially as it is the biggest thing ever attempted by the Medical Department of the U. S. Army.

Our sick list in the Wisconsin Brigade (over 4,000 men) is very small, mostly malaria and dengue, and a record of no deaths, from disease, since leaving Camp Douglas last July.

My kindest regards to the Milwaukee fraternity.

Cordially,

ROB'T. W. BLUMENTHAL.

HEADQUARTERS,
SOUTHERN DEPARTMENT,
FORT SAM HOUSTON, TEXAS.

Sept. 6, 1916.

From: Commanding General Southern Department.

To: Brig. Commander, 1st Brigade, Wisconsin National Guard, Camp Cecil A. Lyon (Through Division Commander Provisional Division, Camp Cecil A. Lyon, Texas).

Subject: Sick rates for month of August, 1916.

1. The health record for the Wisconsin Bridage for the month of August, 1916, as shown by the sanitary statistics is so good that it is desired to take official cognizance of the fact. The 1st Wisconsin Infantry showed an average on sick report of only about 5 per 1000, from both illness and injury, with a minimum of 1 per 1000. The 3rd Wisconsin Infantry had an average of a little over 2 per 1000, and there were two days with no one on sick report and six days with only one case. The 2nd Wisconsin Infantry for the 19 days reported showed a rate on sick report equivalent to 1 per 2000. Between August 22nd and Sept. 1st, this last regiment had only four cases admitted to sick report, all of which returned to duty within 24 hours. In those eight days there were six in which it did not have a single case on sick report. These three regiments aggregate a strength of about 3650 men.

2. The sick report of the smaller Wisconsin organizations showed a similar freedom from illness and injury.

3. The Wisconsin troops are doubtless in better health than they would have enjoyed had they remained at home.

By command of Major General Funston:

OMAR BUNDY,
Colonel, Adjutant General,
Department Adjutant.

60A. 1st. Ind.

Headquarters Camp Cecil A. Lyon,
Fort Sam Houston, Texas, Sept. 8, 1916.

To Brigade Commander, 1st Brigade, Wisconsin National Guards:

Transmitted: This is an unusually fine record.

By order of Brigadier General Greene:

WAIT C. JOHNSON,
Captain, 26th Infantry,
Assistant Adjutant.

2nd Ind.

Headquarters 1st Brig. Wis. Inf.,
Camp Cecil A. Lyon, Texas, Sept. 12, 1916.

To commander of Regiments and separate organizations, who will cause the above to be communicated to all members of their commands.

By command of Brig. Gen. Richardson:

Major, 2nd Wis. Inf.,
Brigade Adjutant.

The State of Wisconsin and the boys of its military establishment are to be congratulated upon having a medical department so well able to meet the demands made upon it, and we extend to the medical officers and particularly to Major Seaman our congratulations and our appreciation of the excellent work done, a work which reflects great credit upon the medical profession.

EXPENSE.

The expense incurred by the committee during the last year was as follows:

August 8, 1916—To sixty copies of a Health Insurance Act	$1.00
August 25, 1916—To telephoning C. S. Sheldon	.36
August 28, 1916—To telephoning A. G. Sullivan	.51
September 1, 1916—To telephoning Rock Sleyster	.76

In addition to the above account, the following items were contracted previously to the date of the last report, but were not included in the accompanying expense account:

September 6, 1915—To telephoning Rock Sleyster	$0.45
September 24, 1915—To telephoning A. G. Sullivan	.65
Total	$3.73

Respectfully submitted,

J. P. McMAHON, *Chairman.*

The report of the Committee on Publication was presented by the Chairman, Dr. A. J. Patek, and on motion duly seconded and carried was accepted as printed.

REPORT OF PUBLICATION COMMITTEE.

Members of the House of Delegates, State Medical Society of Wisconsin.

GENTLEMEN:—

Your attention is called to the satisfactory work accomplished in the two departments of the Journal—the editorial and executive. Dr. L. M. Warfield, who undertook the editorial leadership one year ago, has satisfied to the full all our expectations. He has conducted the Journal in an able manner, and his editorial pronouncements have been well chosen and forceful.

The spirit of co-operation between the editorial and managerial departments, which has characterized previous regimes, has been equally manifest during the past year. Without this happy circumstance our Journal would long since have lost the interest of the workers. We have had high aims, and like ideals, and point with pride at the result.

The managing editor's department, under the capable leadership of Dr. J. P. McMahon, has held its own despite many difficulties. The quality of our advertisements has been in no wise sacrificed to personal gain; on the contrary, personal gain has been sacrificed for the good of our Journal. Both Drs. Warfield and McMahon are deserving of the Society's hearty appreciation.

We append the financial report compiled by Dr. McMahon. The last annual report covered the period from Oct. 1, 1914, to Oct. 1, 1915, whereas this one was computed from August 1, 1915, to August 1, 1916, and it therefore covers two months of the time included in the last report made. The change in the date of the fiscal year was made so as to make it possible to have the annual report compiled in full in time to include it in the handbook prepared for the delegates.

As shown below, each Journal circulated to the members of the State Medical Society cost 7 1-7c per copy, whereas those circulated during the preceding year cost but 6 9-10c. This increase of ¼c per copy is explained by a reduced earning of $31.69 and an increased discount of $122.23, which accounts together exceeded the reduction in expenses of $100.67 by $53.25.

THE WISCONSIN MEDICAL JOURNAL.

FINANCIAL STATEMENT.

August 1, 1915, to August 1, 1916.

Receipts—

Cash Balance August 1, 1915		$ 155.84	
State Medical Society	$1,825.00		
Advertising	3,044.47		
Subscription	38.00		
Half tones, drawings, etc. & A. M. A. Directory.	8.00	4,915.47	$5,071.31

Disbursements—

Equipment	$.....		
Printing	2,355.76		
Commissions	738.38		
Salaries	1,342.00		
Postage	205.00		
Office Supplies and Expenses	21.75		
Miscellaneous General Expenses	59.80		
Half-tones, drawings, etc.	15.30	$4,737.99	4,737.99
Balance on hand Aug. 1, 1916			$ 333.32

Assets.

Office Equipment	$ 158.63	
Cash in Bank	333.32	
Accounts Receivable (including $4.50 due from State Medical Society)	2,232.71	
Merchandise	7.12	$2,731.78

Liabilities.

Accounts Payable	$1,046.50	
Credit Balance on Advertising Accounts	77.44	1,123.94
Assets Exceed Liabilities		$1,607.84

THE WISCONSIN MEDICAL JOURNAL.

PUBLISHING COST STATEMENT.

August 1, 1915, to August 1, 1916.

Income from Publishing—

Advertising gross charges	$3,539.11		
Less Discounts	270.81		
Net Income from Advertising		$3,268.30	
Subscription		40.60	
Total Income from Operation			$3,308.90

Publishing Expenses—

Printing	$2,500.02	
Salaries	1,302.00	
Commission for securing Advertising Contracts	746.25	
Postage	206.85	
Cuts, Drawings, etc	10.80	
Office Supplies and Expenses	22.00	
Miscellaneous General Expenses	61.80	
Total Publishing Expense		$4,849.72
Net Cost of Publishing the Journal		1,540.82

To Members of the State Medical Society:—

The deficit of $1.540.82 represents the cost to the State Medical Society of Circulating 21,530 copies of the Journal, or about 7 1-7c a copy.

Milwaukee, Wis., Aug. 31, 1916.

The report of the Committee on Medical Defense was presented by Dr. A. J. Patek, and after discussion was on motion duly seconded and carried, adopted as presented.

The following Committee of Twelve on Nominations was selected from the floor:

1st District, G. E. Peterson, Waukesha.
2nd District, Dr. H. J. Stalker, Kenosha.
3rd District, Dr. L. R. Head, Madison.
4th District, Dr. W. M. Gratiot, Mineral Point.
5th District, Dr. G. W. Crosby, Sheboygan.
6th District, Dr. S. S. Hall, Ripon.
7th District, Dr. E. H. Townsend, New Lisbon.
8th District, Dr. W. H. Cantwell, Shawano.
9th District, Dr. F. Pomainville, Grand Rapids.
10th District, Dr. E. L. Boothby, St. Croix.
11th District, Dr. Hosmer, Ashland.
12th District, Dr. E. A. Fletcher, Milwaukee.

and on motion duly seconded and carried were elected such Committee on Nominations, with instructions to report to the House of Delegates on Thursday morning.

The report of the Committee on Health and Public Instruction was presented by the Chairman, Dr. Edward Evans, and on motion duly seconded and carried was accepted.

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION.

I herewith submit to you the report of the committee on Health and Public Instruction appointed at the last meeting of the State Society. To this report is appended a financial statement of the expenditure of the three hundred dollars appropriated to this committee at that time.

Your committee held a meeting in Milwaukee at the time of the annual meeting of the council of the society. At this meeting we had the advantage of consultation with and advice from the President and Secretary of the State Society, as well as the Executive Secretary of The Anti-Tuberculosis Association. At that time we decided that it would be best to avail ourselves of the organization and activities of The Anti-Tuberculosis Association for part of the work. Accordingly we voted one hundred dollars of the appropriation to be matched by an equal sum from the funds of the Anti-Tuberculosis Association to send the *Crusader* for one year (ten copies) to every member of The State Medical Society. We also appropriated fifty dollars to the executive secretary of this society for the purpose of circularizing the County Societies desiring them, with the health leaflets gotten out by this association. Of this amount six dollars have already been spent, leaving a balance of forty-four dollars yet unexpended by the executive secretary of the Anti-Tuberculosis Association.

Dr. Dorothy Reed Mendenhall of Madison, Wisconsin, has been doing some research work in puerperal mortality and morbidity statistics as well as some investigation of infant mortality in the state. We appropriated one hundred dollars of the fund to enable her to extend her work in statistical investigation. The value of this will appear in the paper which she reads before the scientific section of your society at this meeting. We believe that you will agree with us in saying that it is a very important piece of investigation.

Your committee, as a second line of activity, has endeavored to have every County Society in the state hold one public health meeting during the year. The success of this venture depended, of course, on the active cooperation of the county officers. It has been in some degree successful, meetings having been held in the following counties: Chippewa, Columbia, Dane, Jefferson, Kenosha, La Crosse, Langlade, Milwaukee, Portage, Wood, Dodge.

Several of the societies that have not already held meetings purpose having them before the end of the year.

No expense to the committee was incurred through those meetings, except in the case of the Pottinger meeting at Milwaukee. The cost of advertising this meeting was assumed by your committee. Any one who had the privilege of attending this meeting needs not to be told what a great success it was. As a get-together meeting, it was remarkable; the educational value of it, everyone who attended, said was incalculable. This called for an expenditure of $31.25.

Probable even the mover and seconder of the motion creating this committee, and certainly, I think it is safe to say, very few members of the State Medical Society, know what health activities are at work in Wisconsin. Consequently your committee thought well to get a survey of the health activities of the state of Wisconsin so far as this could be done by voluntary cooperation of the heads of the various departments engaged in health work, state-wide in scope in Wisconsin. In this way your committee has surveys of the work being done from the State Board of Health, the State Laboratory of Hygiene, the Clinical Department of the State University, the Wisconsin Psychiatric Institute, the State Board of Control, the Wisconsin Home for Feeble Minded, the Committee of Examiners of Registered Nurses (here let us say that no public activity in the state of Wisconsin is doing more for the elevation of hospital standards, and consequently for the promotion of health, than is this Committee of Examiners of Registered Nurses); the Medical Director of Normal Schools; the Department of Public Instruction; the Wisconsin State Tuberculosis Sanitorium, the Wisconsin Anti-Tuberculosis Association, and the Industrial Commission of Wisconsin. This includes, I think, practically all the instiutions of the state engaged either directly or indirectly in health work that are state-wide in their activity. We might have, perhaps should have, included the Dairy and Food Commission. It was an oversight that it is not included in the survey. This survey has been made without any expense to the Medical Society, and we wish to take this opportunity of thanking the heads of the various departments who have furnished this survey for their courtesy and hearty cooperation. It is, I believe, the intention of the Secretary of our society to have, if possible, those reports published in a separate number of the State Journal. This would increase their value by making them more accessible. Because of the probability of their publication, your committee has made no effort to abstract those surveys.

We herewith turn them over to the secretary.

There are various questions presenting themselves at this time that we believe should receive the serious consideration of this society. No provision is made in this state for the care of inebriates. We believe that a well equipped farm should be provided by the State Board of Control for the voluntary or enforced treatment of the chronic alcoholic, where, under scientific direction and control, many of those cases could probably be cured and returned to useful citizenship. We know that the Board of Control is interested in this problem, and I believe some committee of the society should take the question up with them with the object of having, at the earliest possible time, provision made for the care and treatment of this class of cases.

The Home for Feeble-Minded at Chippewa Falls is always overcrowded and we believe provision should be made in this state for an epileptic colony, which would relieve very greatly the congestion at Chippewa Falls, and remove from the Home there a class of cases that could be much better treated in a farm colony, such as they have in the state of New York.

The question of compulsory health insurance is sure to receive the attention of legislators at a very early date in the various states, and we may expect that at the next session of the legislature in Wisconsin a bill for compulsory health insurance in the industries will be introduced. Once any state adopts such insurance we may expect it to be taken up by other states as widely and as rapidly as was industrial accident insurance. Such insurance is bound to have a far-reaching social effect. It will seriously disarrange present medical practice and we must prepare ourselves to meet the altered conditions that will arise. We are glad to note that the President of the Society has already taken cognizance of this and we would recommend this as well as the two preceding matters to your serious consideration.

In submitting this report, we beg to acknowledge the confidence reposed in your committe by the appropriation made enabling us to, in some degree, fulfill your wishes and we beg to be discharged from further duty.

E. Evans, *Chairman.*

The report of the Committee on Medical Education was presented by the Chairman, Dr. C. R. Bardeen, and on motion duly seconded and carried was accepted as printed.

REPORT OF THE COMMITTEE ON MEDICAL EDUCATION.

During the past year, steady progress has been made in medical education both within the state and throughout the country.

At the last session of the state legislature a bill was passed requiring two years of pre-medical college work from all candidates for license to practice medicine in this state applying after January 1, 1919. This standard of two years of pre-medical college work has been adopted by the Association of American Medical Colleges and appears likely to be generally adopted in this country.

At the conference on medical education of the American Medical Association, special attention was paid in the report of the secretary of the council to the cost of medical education. It was pointed out that in 82 medical colleges furnishing financial reports the average yearly expenditure for each student was $419.00, while the average income received from each student in tuition fees was $150.00. It is, therefore, obvious that modern medical education needs liberal support, both from the state and from private endowments.

At the joint session of the Council on Medical Education and the State Federation of Medical Boards, considerable attention was devoted to a national board of medical examiners on which there are represented the medical services of the U. S. army, the U. S. navy, and the U. S. public health service, the Federation of State Licensing Boards, and the medical profession at large. The idea of this board is to furnish examinations with standards so high that anyone passing the examination might well be permitted to practice anywhere in the United States.

During the past year a series of lectures were exchanged between the State University and Marquette Medical School which were found advantageous in promoting co-operation between the two schools and stimulating interest in the students.

Respectfully submitted for the committee,

C. R. Bardeen.

The report of the Committee on Necrology was presented by the Chairman, Dr. L. M. Warfield, and duly amended, and on motion duly seconded and carried adopted as read.

REPORT OF THE COMMITTEE ON NECROLOGY.

House of Delegates:—

The following is the report of the committee on Necrology, including the deaths reported up to August 20, 1916. There were 34 deaths among the Profession in Wisconsin during the past year, one or two of those as the report shows were born in Wisconsin and had practised some time in the State but died outside of the State.

The full report is herewith appended.

Respectfully submitted,

Louis M. Warfield,

Chairman.

Dr. S. Gordon Todd, Oshkosh, died on October 13, 1915, aged 47 years, of pneumonia.

Dr. Todd was born in Canada in 1868. He was a graduate of Trinity Medical College, and Queen's University, Kingston, Ontario, in 1890. He had practiced for about twenty-five years, coming to the city of Neenah fourteen years ago, and to Oshkosh two years ago.

He was a member of Winnebago County and the State Medical Societies, the Milwaukee Oto-Ophthalmic Society, and the American Academy of Ophthalmology and Oto-laryngology.

Dr. Ira M. Martin, Green Bay, died suddenly of heart disease on October 25, 1915, aged 50 years.

Dr. Martin was born at Eaton, Ind., November 4, 1865. He was graduated from the Kentucky School of Medicine, Louisville, in 1891. He practiced at Raymond Center, Wisconsin, for about twelve years. Nine years ago he located at Green Bay, and had resided there up to the time of his death.

He was a member of Brown County and the State Medical Societies.

Dr. Frederick P. Leich, Jackson, died on August 21, 1915, aged 75 years. He was a member of Washington County and the State Medical Society.

Dr. Henry F. Kortebein, Milwaukee, died on September 14, 1915, aged 47 years. He was a graduate of the Northwestern University Medical College in 1892. Member Milwaukee County and the State Medical Societies.

Dr. Edmund F. Woods, Janesville, was drowned on August 19, 1915, by the sinking of the S. S. Arabic. Dr. Woods was 60 years old. He was a graduate of the Medical College of Indiana in 1882. He was district surgeon for the Chicago and Northwestern Railway for twenty years. He was a member of Rock County and the State Medical Societies, Fellow American Medical Association, member of the Association of Railway Surgeons, and a member of the Clinical Congress of Surgeons.

Dr. Frederick C. Gillen, Milwaukee, was accidentally killed by the explosion of a compound containing potash during experiments to find a process for manufacturing that chemical, on September 3rd, 1915.

Dr. Gillen was born in Grand Haven, Michigan in 1871, and received his medical education at the Michigan University in 1892. In 1893 he came to Milwaukee, and had practiced there up to the time of his death. He was a member of Milwaukee County and the State Medical Societies.

Dr. A. C. Kellogg, Portage, aged 70 years, one of the oldest practitioners of the state, who came to Wisconsin in 1852 and settled in Dodge County, died after several month's illness following a stroke of apoplexy on November 2, 1915. He had practiced at Portage since 1870, being a graduate of Belleview Hospital Medical College. He was formerly a member of the Democratic State Central Committee and was superintendent of the Portage public schools for many years. He was a member of Columbia County and the State Medical Societies.

Dr. Nathanael A Gray, one of Milwaukee's best known physicians a resident of the city for sixty-one years, died at Mount Sinai Hospital on November 25, 1915, of pneumonia, after 74 years. Dr. Gray has been in ill health for eight years.

Dr. Eugene W. Beebe, Milwaukee, died on December 20, 1915, following a stroke of paralysis, aged 75 years. Dr. Beebe was born in Canandaigua, N. Y., on February 21, 1840. He was graduated from the Hahnemann Medical College, Chicago, in 1866, and began practice at Stoughton, Wis. He later removed to Evansville, where he practiced fourteen years. After special study in New York, Dr. Beebe,-came to Milwaukee in 1880, beginning practice as an eye, ear, nose and throat specialist. He was a member of Milwaukee County and the State Medical Societies.

Dr. Henry Blank, Milwaukee, died on January 13, 1916, aged 55 years, of Bright's Disease. He attended the Normal School at Whitewater, following which he taught for several years in the public schools of Walworth County. He studied medicine at Rush Medical College, where he graduated in 1885. He first practiced at Jackson, Wisconsin, but for the past ten years had resided in Milwaukee.

He was a member of Milwaukee County and the State Medical Societies.

Dr. A. T. Koch, who had practiced at Wausau for nearly half a century, died on January 6, 1916, after a short illness with the grippe. Dr. Koch was a native of Germany, having been born in Stettin, Prussia, Nov. 9, 1839. At 17 years he came to America, locating at Watertown, atended the schools there and later studied medicine. He was a soldier in the Vivil War with Co. C. Second Minnesota Cavalry. At the close of the war he resumed the study of medicine, graduating in 1874 from the Bennett Medical College, Chicago. He first located at St. Ansgar, Iowa, later removing to Wausau. He retired from active practice three years ago. He was an honorary member of the Marathon County Society.

Dr. H. A. Albers, Milwaukee, died on January 31, after a brief illness, aged 60 years. Dr. Albers was born May 13, 1856, in the town of New Holstein. After completing the district school course, he attended the high school at Chilton, making his home with the late Dr. David LaCount. He later attended Lawrence University at Appleton, and graduated from that institution in 1878. He then took up the study of medicine at Chicago, graduating from Rush Medical College in 1881, and immediately thereafter located at Thiensville, where he practiced his profession for thirty-three years. Two years ago he retired from active practice because of ill health. He was one of the founders of the Wisconsin College of Physicians and Surgeons, and professor of medicine there for many years.

Dr. Hugo Philler, Minneapolis, for many years one of the leading physicians of Waukesha county, died on February 22, 1916, aged 78 years. Dr. Philler was born in the province of Silesia, Prussia, Germany, on January 4, 1838, and came to America in August, 1861. He received his education in the schools and universities in Germany, studying medicine at the University of Breslau, and afterward at the University of Greifswald, from which he graduated in 1861. He was first assistant surgeon of the Forty-fifth New York infantry, and served in that capacity until the close of the Civil War. In 1865 Dr. Philler located at Waukesha, and had lived there until about eight years ago, when he removed to Minneapolis.

Dr. James A. Masterson, Watertown, died on February 9, 1916, aged 71 years. Dr. Masterson was born in Watertown in 1845, and had spent his entire life in that city. He received his education in St. Bernard's parochial school, the public schools of Watertown, Northwestern College, and the Iowa State University. He studied medicine with the late Dr. James Cody, and then entered Rush, graduating in 1871.

He was a member of Jefferson County and the State Medical Societies.

Dr. Benjamin U. Jacob, 66, prominent in the medical profession in Waukesha since 1887, died May 28 following a protracted illness. He was born in Tuscarawas

county, Ohio, and was educated in the public schools and graduated from the high school at New Philadelphia in 1867. In the fall of the same year he entered Mt. Union college, Alliance, Ohio, from which he graduated in 1871, receiving the A. B. degree. During his college life he taught at intervals, and after his graduation took up the study of analytical chemistry with the view of becoming an analytical chemist. In 1873 he engaged in the drug business at Lamont, near Chicago, in which he continued until 1879, when he entered the medical department of Northwestern university of Chicago. Upon graduating in 1881 he began the practice of the profession in Chicago, but two years later located at Port Washington, where he remained until he came to Waukesha.

Dr. Jacob, on July 27, 1971, married Miss Lucetta Hartshorn.

Dr. W. W. Reed, Jefferson, died on May 10 of a stroke of paralysis suffered on April 10th. Dr. Reed was born on a farm in Versailles, Ohio, February 8, 1825. His childhood days were spent on the farm and his early education acquired at the home school, after which he attended and graduated at the Acadamy at Versailles, then teaching school. He later studied at the College of Physicians and Surgeons, Keokuk, Iowa, from which institution he graduated. In October, 1849, he commenced the practice of his profession at Jefferson, which he continued until one year ago.

For twenty years he had been a member of the State Board of Charities, and he fathered the legislation that brought about the establishment of the present system of county asylums for the insane.

With a record of four years in the assembly, eight years in the state senate, mayor of Jefferson for twelve years, and county physician for thirty-six years, Dr. Reed, affectionately called the "grand old man of Jefferson County," is generally admitted to have had a most active and useful career.

He was a member of Jefferson County and the State Medical Societies.

Dr. Charles H. Marquardt, La Crosse, died on March 30, 1916, of pneumonia, aged 61 years. Dr. Marquardt was born in Nemrin, province of Pomerania, Germany, January 6, 1855. In 1868 he came to La Crosse with his parents. For a short time he worked as an apprentice in a drug store, and in 1874 went to Philadelphia, where he graduated from the Philadelphia College of Pharmacy in 1876. For three years following he conducted a drug store at Council Bluffs, Ia., and then entered Jefferson Medical College, Philadelphia, where he graduated in 1882 and immediately came to La Crosse, where he resided up to the time of his death. He was at one time a member of the State Board of Examining Physicians, a member of the school board of La Crosse and city physician of La Crosse. He was a member of La Crosse County and the State Medical Societies.

Dr. John Specht, Superior, died at the Eitel Hospital, Minneapolis, on March 16, 1916, following an operation for appendicitis, aged 55 years. Dr. Specht was born at Black River Falls, Wisconsin, in 1861. He received his medical education at College of Physicians and Surgeons, Keokuk, Iowa, from which institution he graduated in 1883. Upon graduation he practiced for a time in one of the Dakotas. After a short stay in the west he came to Superior, and had practiced there for about thirty years. He was at one time health commissioner of Superior and was a former president of Douglas County Medical Society. He was a member of the State and Douglas County Medical Societies.

Dr. Albert C. Welch, Weeping Water, Nebraska, died on June 2nd, aged 62 years. Dr. Welch formerly resided at Delavan, Wisconsin.

Dr. Sue Hebard, Chippewa Falls, died on June 15th, after an illness of two weeks' duration, beginning with a stroke of apoplexy. Dr. Hebard was born at Mondovi, 36 years ago. She was a graduate of the University of Minnesota, in 1903. After graduation she practiced for a time with her father at Mondovi, and recently came to Chippewa Falls to take charge of the public health nursing. She was a member of the Chippewa County and the State Medical Societies.

Dr. M. W. Taylor, Kilbourn, died on June 15th, after a year's illness of tuberculosis. Melvin W. Taylor was born in Eaton County, Michigan, Feb. 6, 1853. At the age of eight he moved with his parents to Adrian, Michigan. He studied medicine at the University of Michigan Medical School, Ann Arbor, graduating in 1879. He had practiced at Kilbourn for thirty-five years. He was a member of Columbia County and the State Medical Societies.

Dr. Nathan Allen Loofbourow, Monroe, died on July 6th, aged 67 years. He was a graduate of Rush Medical College in 1873. He was a member of Green County and the State Medical Societies.

Dr. Thomas Gillespie, Kenosha, died on July 6, 1916, aged 80 years. Dr. Gillespie had been confined to his bed for more than six years with rheumatism. He was a native of Scotland where he was born October 24, 1835. He came to this country when 14. He was educated for the ministry, and was for a time pastor of the Bristol and Paris Congregational churches. Later he studied medicine, and was graduated from the Hahnemann Medical College in 1880. Dr. Gillespie was one of the charter members of the Kenosha County Medical Society.

Dr. Herman Gasser, Platteville, died on July 7, 1916, after an illness of several months duration. Herman Gasser was born December 6, 1856. His birthplace nestles among the Alps, a few miles south of Lake Constance. He was an Austrian of the province of Tyrol. In 1866 the family came to this country, settling in Dubuque. In the public schools of that city Dr. Gasser was educated, and there became a registered pharmacist. In 1877 he came to Platteville, where he was employed as a pharmacist. He first studied medicine at the University of Iowa, and later at Chicago Medical College, where he graduated in 1883, and immediately began the practice of medicine at Platteville. In 1884 he was married to Elizabeth Griswold of Stit-

zer. He was a member of Grant County and the State Medical Societies.

Dr. John L. Johnson, Milwaukee, died on March 21, 1916. Born at Jefferson, Wisconsin, in 1877. Graduate of Marquette University—class of 1902. He served in the Spanish-American war with Co. B, 1st Wisconsin Regiment. He was a former member of Milwaukee County and the State Medical Societies.

Dr. Leonard L. Knapp, New Richmond, died on December 15, 1915, of a complication of diseases, originating from infection of the bowels, aged 64 years. A native of Franklin, Maine, born there in 1851. Educated in Western State Normal School, Farmington, Maine, later studying at Kent's Hill, studied medicine at the University of Michigan, graduating in 1883, and located at New Richmond the same year. Dr. Knapp served New Richmond as health officer for a number of years. Member of St. Croix County and the State Medical Societies.

Dr. R. D. Freeman, Colby, died on August 26, 1915, at the Veterans' Home, Waupaca, aged 76 years. Born at Parishville, N. Y., boyhood was spent on a farm in northern New York, served throughout the Civil War in Co. K, 60 N. Y. Vol., took up the study of medicine at the University of Vermont, College of Medicine, Burlington, graduating in 1873, came west in 1876, locating at Dorchester, and one year later removed to Colby. He was a former member of the State Medical Society.

Dr. William S. Pickard, Mikana, Wis., Northwestern University Medical School, Chicago, 1886; aged 57; a Fellow of the American Medical Association; for many years a practitioner of Maywood, Ill.; died in Mikana, September 10, 1916.

Dr. Edward A. Schmitz, Wauwatosa, died on August 31, after a long illness, aged 55 years. Dr. Schmitz was born in Milwaukee and taught in country schools, later taking up the study of medicine at the Chicago College of Physicians and Surgeons, graduating in 1884. He was located at Wauwatosa twenty-two years, and was at the time of his death health commissioner of that village.

Dr. Arthur Marsden, Rio, died suddenly of heart failure on September 1, 1916, aged 47 years. Dr. Marsden was a graduate of the St. Louis College of Physicians and Surgeons in 1895. He was a member of Columbia County and the State Medical Societies.

Dr. John A. McLeod, Milwaukee, died suddenly on September 22, 1916, aged 60 years. John Alexander McLeod was born in Curry Hill, Ontario, Canada. He studied at the University of Michigan and took up a medical course at McGill University, Toronto, graduating in 1878. Following his graduation he located at Vulcan, Michigan, and for a number of years lived at Ironwood, Michigan, where he served as physician for the Newport Mining Co. Dr. McLeod came to Milwaukee in the early eighties, and had been located there up to the time of his death.

Dr. Bernard C. Gudden, Oshkosh, suicided on September 15, 1916. Dr. Gudden was born in the town of Black Wolf fifty-nine years ago. He received much of his education under the tutelage of his father. His medical degree was obtained from Rush Medical College in 1879. He spent two years at Cook County Hospital and later took a trip abroad for professional advancement. In 1881 he located at Oshkosh. One of the most notable achievements of Dr. Gudden's was the establishment and operation of the Oshkosh Clinic, a general hospital, which he conducted until ill health compelled him to retire. He was a member of the Winnebago County and the State Medical Societies.

Dr. Thomas Fitzgibbon, Milwaukee, died at his home in St. Francis, on September 18, 1916, following an illness of several years' duration, aged 62 years. Thomas Fitzgibbon was born March 1, 1853, at Troy, N. Y. When four years old he was taken to Fond du Lac by his parents, and his early education was obtained in the schools of that city. After teaching school he entered Rush Medical College, graduating in 1882. Following a year's practice at Chicago, he took up his residence at Plymouth. In 1894 Dr. Fitzgibbon came to Milwaukee, becoming an instructor at Milwaukee Medical College, and when that institution was merged with Marquette he continued in a similar capacity. He retired from active practice six years ago. He was a member of Milwaukee County and the State Medical Socities.

Dr. L. A. Bishop, Fond du Lac, died on September 2, 1916, aged 70 years. The immediate cause of death was a hemorrhage of the brain. The doctor had, however, been in ill health for three years, and had retired from active practice in 1914.

Llewellyn A. Bishop was born in the town of Eden, Fond du Lac County, August 24, 1846. Dr. Bishop spent practically his entire life in Fond du Lac County, his youthful days being spent upon his father's farm. He supplemented his district school education by a course in the Fond du Lac high school. His medical education was obtained at Hahnemann Medical College, in which he completed his course with the class of 1870. On March 16, 1870, he was married to Miss Cynthia A. Patchen. Dr. Bishop was twice mayor of Fond du Lac. He was a member of Fond du Lac County and the State Medical Societies.

The report of the First Aid Committee appointed by the President was presented by Dr. D. J. Hayes, Chairman, and on motion duly seconded and carried adopted as read.

The report of the Health Insurance Committee was presented by the Chairman, Dr. Hoyt E. Dearholt, and on motion duly seconded and carried was accepted and placed on file.

HEALTH INSURANCE COMMITTEE REPORT.

Great Britain, Germany, Russia, Holland, Austria Hungary, Luxemberg, Rumania and Servia have all provided for compulsory health insurance. France, Belgium, Switzerland, Sweden and Denmark have forms of state health insurance which are not compulsory, however, in all of their features.

In the United States there are at the present time more than forty separate organizations engaged in the study of the merits and demerits of proposed compulsory health insurance legislation for this country. These include the American Association of Labor Legislation and the American Medical Association. Health instruction

bills were introduced in the 1916 legislatures of New York, Massachusetts and New Jersey. California has a legislative commission which is to report at the next session.

In Wisconsin a considerable number of civic, health, labor, industrial and business organizations are displaying active interest in the question. At least one organization proposes to secure the introduction of a bill in the forthcoming session of the Wisconsin legislature. Therefore, the proposal of the Committee on Public Policy Legislation, made through its chairman, Dr. McMahon, which led the president of the society with the approval of the president of the council to appoint an interim committee with instructions to submit a preliminary report at this meeting, was timely. Inasmuch as the medical profession, through organized and individual effort of its members, has always taken an advanced and leading position in securing social legislation in the interest of the people, it is apparent that we should, as a profession, be prepared early to provide guidance and correction when needed in the shaping of public opinion, which sooner or later will lead to introduction of bills in the state legislature.

Your interim committee therefore submits this tentative and preliminary report. At best it must be considered but a mere introduction to the subject. The time for its preparation has been short and the literature alone on the subject is voluminous. Indeed, it would have been almost impossible to have presented even this brief review and discussion of the subject without the cooperation of the Wisconsin Anti-Tuberculosis Association, which organization has employed an assistant who is devoting his time to the study of this proposed change in social and governmental conditions. The many-sidedness of the question is well expressed by the "New Republic," which says that the agitation in favor of health insurance has enlisted in its service "the passion of the humanitarian yoked with the zeal of the scientist; the sentimentalist and the rationalist fighting side by side against the established order."

Space will not permit even the mention, much less the discussion, of the advantages that compulsory health insurance is claimed to hold for the general health and welfare of the public. We have felt compelled, therefore, to restrict this report, first, to a superficial sketch of the nature of health insurance as it is reflected in the model bill of the American Association for Labor Legislation; second, to a brief discussion of the phases of the subject which relates to the practice and economics of the medical profession.

The essential features of the bill are the following:

Employes earning under a stated sum ($1,200 or thereabouts) are to be compulsorily insured in funds or societies which are to derive their revenue from contributions, 40 per cent by the employer, 40 per cent by the employe, and 20 per cent by the state. The percentage varies under certain conditions. The employe, while so insured, is entitled upon his becoming disabled through illness to obtain the benefits provided, to-wit:

A. 66 per cent of his earnings as a cash benefit;

B. Medical benefit consisting of

(1) Treatment by a qualified physician or surgeon;

(2) Nursing care;

(3) Hospital care;

(4) All necessary medicines, surgical appliances, dressings, eye glasses, etc..

(5) Dental care.

C. A maternity benefit to be paid not only to an insured woman but to the wife of an insured man, consisting of:

(1) All necessary medical, surgical and obstetrical aid;

(2) Weekly indemnity benefit equal to the regular sick benefit for eight weeks.

D. A funeral benefit not to exceed $50.00.

These benefits are not to be paid for over a period of twenty-six weeks in any one year.

The insurance funds are distributed by local mutual associations which are administered by a board composed equally of employers and employes elected by the bodies which they represent, and which in turn elect an executive committee which manages the funds. The state supervises and guarantees solvency of these various mutual funds. Through these executive committees the medical men obtain their remuneration.

A brief abstract of the tentative draft as submitted by the American Association for Labor Legislation may be found on page 28 of the Hand Book for House Delegates.

The effect that any enactment will have upon the financial status of physicians is one that must be considered early for two reasons: First, because the interest of a large number of citizens vitally affected cannot justly be ignored; second, because any ultimate benefits that may accrue to the public will be dependent finally upon the character of medical service that is to be secured by the insured.

Such modifications as were made in the British and German enactments and administration as the result of threatened strike of British physicians and actual strikes of German physicians should be avoided in this country by exercising foresight and by providing for conferences before rather than after legislation has been passed.

With such modifications as were made in Great Britain it is notable that at the commencement of the present war, fully nine-tenths of the 22,000 physicians were on insurance panels. Thus but one in ten British physicians had declined to work for the insurance societies, leaving 2,000 or less than one in ten not treating insurance cases. The financial outcome for the medical profession in England furthermore has been excellent. During the eighteen months following the introduction of the compulsory insurance act, payment of British physicians under the act amounted to $20,500,000. This is an average of $1,150 for each physician on the panel. An average payment per visit was found to be $1.00. With the higher American standard of living it is reasonable to suppose that the American visit payment will be higher. Under health insurance there will be no charity work and no uncollectible bills. The average cost per patient per year for medical service for the first eighteen months in Great Britain was about $1.87. It is claimed that the average income of physicians was thus raised from $750 to $2,000 a year. While it is possible that individual physicians may have received less remuneration under the English act than they formerly

received in private practice, the fact remains that the general amount paid to physicians working among the industrial classes is increased. In Germany the remuneration of the doctors has been steadily increased, due not only to the increased cost of living, and thus to a proportionate increase of the payment of doctors, but by a steady increase in fees and special payments to them for special treatments, etc.

There are three main systems which have been suggested for remuneration of the physicians.

Plan I. Each insurance fund to have its salaried doctors who, for stated salaries, treat all insured persons.

There are various possible objections to this. Among others are:

(a) It would tend to perpetuate all of the well known abuses now common under the objectionable contracts which so frequently obtain in present sick benefit societies.

(b) Few of the medical profession are engaged.

(c) The insured has no choice as to his physician and hence may have less confidence in him. This affects the results of treatment.

(d) The salaried physicians may become corrupted and perform their tasks in a perfunctory manner. The existence, however, of such a medical corps as the United States Public Health Service makes the validity of the last objection questionable.

The insurance companies, however, may favor this plan as being on the face of it, an economical one.

Plan II. The doctors on the insurance panels are to receive a yearly per capita payment for each individual insured. This plan has its advantages and disadvantages, which may be listed as follows:

ADVANTAGES.

A. The system of payment is simplified to a great degree.

B. Free choice of physicians is allowed with some obvious beneficial results. The arguments advanced for a free choice of a physician are, in short, the following:

(1) Co-operation of patient who trusts the doctor's opinion.

(2) Possibly more personal interest in the patient who has exercised a choice and is free to make another. German doctors have insisted on a free choice being allowed.

A serious question arises here, however, in determining how far such health insurance act must or should recognize irregular practitioners. These are, unfortunately, more numerous in this country than in Europe. Their legal status, furthermore, is better established in America than abroad.

C. It is claimed by the advocates of the system that the aggregate per capita returns represents a fair wage for the actual money value of the services rendered.

DISADVANTAGES.

A. Possible slighting of the welfare of patients in whom the physician has no immediate pecuniary interest. This would in great measure be overcome by choice of physician on part of patients conscious of neglect.

B. The per capita payment makes no provision for extraordinary responsibility or service rendered. This, however, is overcome in law of averages.

Plan III. The payments to be made on a basis of visits made. This system, while attempting to pay a doctor on a merit basis, is objectionable on two grounds:

(a) Some doctors may make unnecessary calls and thus cause an abnormally high insurance rate.

(b) A doctor has no financial incentive offered to prevent illness and thus lessen his own labors without financial loss.

Your committee feels that in a combination of these various schemes, roughly sketched above, lies a solution of the problem, which will be satisfactory to the state, the insurance companies, the employers, the employes, and the medical profession. In just what manner this can be worked out your committee does not feel itself to be in a position to report finally at this time, but as a tentative suggestion for the purposes of discussion and argument, offers the following for consideration:

(1) Each medical insurance fund will have one or more medical supervisors on salary. The duties of these supervisors will be—To safeguard the interests of the fund, in preventing, malingering, refereeing cash awards, acting as referee on occasions of disagreement, deciding upon desirability of consultation or specialized service and advising upon matters of hygiene and sanitation in the industries and in the homes, and so forth.

(2) Individual physicians who have registered on the panel will be paid on a per capita basis; the insured having free choice of physicians within the panel.

(3) Consultations, obstetrical service, and other personal or specialized service will be paid for on a unit basis of service.

CONCLUSION.

We suggested in the beginning that we could not offer a finished report. At the conclusion we can state that we have not attempted to do so. Our function, we were told, was to bring the subject of compulsory health insurance to the attention of the society and to furnish a basis for discussion. This we have attempted to do.

Only one indisputable conclusion has been reached by your committee, viz., that the question of introducing health insurance presents tremendous difficulties and possibilities which offer abundant opportunities for years of study. We are convinced, first, that your interim committee should be replaced at this time and place by a permanent committee in which will be vested authority to take, with the approval of the council, such steps as may be indicated in case legislation is introduced in the coming session of the legislature; second, that County Medical Societies be urged to devote time to the discussion of the question which touches the interests of physicians more than those of any other profession or social group.

J. M. Beffel,
A. W. Gray,
C. H. Lemon,
M. R. Wilkinson,
G. Windesheim,
W. F. Zierath,
H. E. Dearholt,
Chairman.

On motion duly seconded and carried the Report of the Delegates to Annual Meeting of the American Medical Association was adopted as printed in the handbook.

REPORT OF DELEGATES TO THE A. M. A.

Milwaukee, Wis., Aug. 24, 1916.

To the House of Delegates of the Wisconsin State Medical Society:

Gentlemen:—I have the honor to report the following proceedings of the House of Delegates of the American Medical Association at Detroit, Michigan, June 12-15, 1916.

On Monday morning, June 12th, the House of Delegates met in the auditorium of the Wayne County Medical Society Building and was called to order by the President, Dr. Albert Vander Veer, Albany, New York. One hundred and ten delegates were seated. The president thereupon declared the house duly organized. The minutes of the sixty-sixth annual session, held in San Francisco, were then presented, corrected and adopted. The report of the officers being the next order of business, Dr. Vander Veer presented the president's address, which was referred to the committee on reports of officers.

The president's address dealt with medical laws, medical inspection of schools, of industrial diseases and preparedness. The president then announced the reference committees and a committee on awards for scientific exhibit.

The secretary, Dr. Alexander R. Craig, then presented his report. The fellowship of the American Medical Association, May 1st, 1915, was 42,366. During the past year 441 fellows have died, 1,540 have resigned, 713 have been dropped as not eligible, 658 have been dropped for non-payment of dues, and 17 have been removed from the roles on account of being reported not found, making a total of 3,369 names to be deducted from the fellowship roll. There have been added 4,184 names to the membership. The fellowship of the American Medical Association, May 1st, 1916, was 43,181, a net increase for the year of 815.

The report of the Board of Trustees was then received. This shows that the weekly average of the issue of the Journal during 1915 was 67,390. The trustees' report shows a net loss during 1915 of $2,489.20. $28,837.63 was paid during the year 1915 as legal fees and $147,949.10 for wages and salaries.

The judicial council, in its report, recommended that the House of Delegates meet annually on the two days preceding the opening of, and at the same place as, the Scientific Assembly of the Association. The Judicial Council also recommended that the House of Delegates elect annually a chairman and a vice-chairman. The idea of having a chairman and vice-chairman was to relieve the president of the duty of acting as chairman of the House of Delegates and also to secure someone as chairman who had a fair idea of parliamentary rules. Both amendments were adopted.

The next order of business was the report of the Council on Health and Public Instruction. A sub-committee made a most exhaustive and instructive report on social insurance, this included an abstract of social insurance as at present conducted in Europe.

On November 11th, the secretary of this committee received from Dr. John B. Andrews, secretary of the American Association for Labor Leigslation, a pamphlet containing a tentative draft of a medical bill for industrial insurance, as is proposed for this country. In this tentative bill the provisions regarding medical services were intentionally incomplete, in order that this question might be taken up by the representatives of the organized medical profession, and properly discussed.

The secretary of this committee proposed to Dr. Andrews the appointment of a committee to represent the American Medical Association, which would work with him in the elaboration of the details of the model bill effecting physicians.

Dr. Lambert, as chairman of the committee, has secured the services of Dr. I. M. Rubinow of New York as the executive secretary of the committee, has established headquarters, has begun to collect the material on social insurance, and is now prepared to make an exhaustive and authoritative study of the subject for the benefit of the members of the American Medical Association.

For the past year a committee of the American Association for Labor Legislation has been working to obtain a definite measure to present as embobdying certain health insurance standards that could be modified to meet the situation in the various states of the Union. The following health insurance standards have been adopted, and the following tentative draft of a health insurance act has been agreed upon as a standard act which could be modified as the exigencies of the various states required.

The following is a brief abstract from the proposed bill:

HEALTH INSURANCE STANDARDS.

1. To be effective, health insurance should be compulsory on the basis of joint contribution of employer, employee and the state.

2. The compulsory insurance should include all wage workers earning less than a given annual sum, where employed with sufficient regularity to make it practicable to compute and collect assessments. Casual and home workers should, as far as practicable, be included within the plan and scope of a compulsory system.

3. There should be a voluntary supplementary system for groups of persons (wage workers or others) who for practical reasons are kept out of the compulsory system.

4. Health insurance should provide for a specified period only, provisionally set at twenty six weeks (one-half year), but a system of invalidity insurance should be combined with health insurance, so that all disability due to disease will be taken care of in one law, although the funds should be separate.

5. Health insurance on the compulsory plan should be carried by mutual local funds, jointly managed by employees and employers under public supervision. In large cities such locals may be organized by trades, with a federated bureau for the medical relief. Establish-

ment funds and existing mutual sick funds may be permitted to carry the insurance where their existence does not injure the local funds, but they must be under strict government supervision.

6. Invalidity insurance should be carried by funds covering a larger geographical area, comprising the districts of a number of local health insurance funds. The administration of the invalidity fund should be intimately associated with that of the local health funds and on a representative basis.

7. Both health and invalidity insurance should include medical service, supplies, necessary nursing and hospital care. Such provisions should be thoroughly adequate, but its organization may be left to the local societies under strict government control.

8. Cash benefits should be provided by both invalidity and health insurance for the insured or his dependents during such disability.

9. It is highly desirable that prevention be emphasized so that the introduction of a compulsory health and invalidity insurance system shall lead to a campaign of health conservation similar to the safety movement resulting from workmen's compensation.

HEALTH INSURANCE TENTATIVE DRAFT OF AN ACT.

Section 1. Title—This chapter shall be known as the Health Insurance Act.

Sec. 2. Definition—When used in this act: "Commission" means the Social Insurance Commission; "Fund" means a local or trade fund, as the case may be; "Society" means an approved society; "Carrier" means the society or fund which carries the insurance; "Insurance" means health insurance under this act; "Disability" means inability to pursue the usual gainful occupation.

Sec. 3. Compulsory Insurance—Every person employed in the state at manual labor under any form of wage contract, unless exempted under Section 4 of this act, and every other employee whose remuneration does not exceed $100 a month, shall be insured in a fund or society, except employees of the United States and except employees of the state or of municipalities, for whom provision in time of sickness is already made through legally authorized means which in the opinion of the Commission are satisfactory.

Sec. 4. Home Workers and Casual Employees—Special regulations shall be made by the Social Insurance Commission for the insurance of home workers and casual employees, or for their exemption from compulsory insurance.

Sec. 5. Voluntary Insurance—Self-employed persons whose earnings do not exceed $100 a month on an average; persons formerly compulsorily insured who, within one year from the date on which they cease to be insured, apply for voluntary insurance; members of the family of the employer who work in his establishment without wages may insure themselves voluntarily in the local or trade funds of the locality in which they live and of the trade at which they are employed, subject to conditions of this act.

Sec. 6. Cases in which Paid—Insured members shall receive benefits in case of any sickness or accident or for death not covered by workmen's compensation.

Sec. 7. Minimum Benefits—Every carrier must provide for its insured members as minimum benefits: Medical, surgical and nursing attendance; medicines and surgical supplies; cash benefits; maternity benefits; funeral benefits; medical and surgical attendance and medicines for dependent members of their families.

Sec. 8. Beginning of Right—Insurance, with the exception of maternity benefits, begins with the day of membership. The maternity benefits shall be payable to any woman insured against sickness for at least six months during the year preceding the confinement, or to the wife or widow of any man so insured.

Sec. 9. Medical—Surgical and Nursing Attendance—All necessary medical, surgical and nursing attendance and treatment shall be furnished by the carrier from the first day of sickness during the continuance of sickness, but not to exceed twenty-six weeks of disability in any consecutive twelve months. In case the carrier is unable to furnish the benefit provided for in this section, it must pay the cost of such service actually rendered by competent persons at a rate approved by the commission.

Sec. 10. Medical Service—The carriers, subject to the approval of the Commission, shall make arrangements for medical, surgical and nursing aid by legally qualified physicians and surgeons, and by nurses or through institutions or associations of physicians, surgeons, and nurses. Provison for medical aid shall be made by the carriers by means of either:

1. A panel of physicians to which all legally qualified physicians shall have the right to belong, and from among whom the patients shall have free choice of physician, subject to the physician's right to refuse patient on grounds specified regulations made under ths act; provided, however, that no physcian on the panel shall have on his list of insured patients more than five hundred insured families or more than one thousand insured individuals.

2. Salaried physicians in the employ of the carriers, among which physicians the insured persons shall have reasonable free choice.

3. District medical officers, engaged for the treatment of insured persons in prescribed areas.

4. Combination of above methods.

Sec. 11. Medical Officers—Each carrier shall employ medical officers to examine patients who claim cash benefit, to provide a certificate of disability, and to supervise the character of the medical service in the interests of insured patients, physicians and carriers.

Sec. 12. Medical and Surgical Supplies—Insured persons shall be supplied with all necessary medicines, surgical supplies, dressings, eyeglasses, trusses, crutches and similar appliances prescribed by the physician, not to exceed $50 on cost in any one year.

Sec. 13. Hospital Treatment for One Person—Hospital or sanatorium treatment and maintenance shall be fur-

nished, upon the approval of the medical officer of the carrier, instead of all other benefits (except as provided in Section 16), with the consent of the insured member or that of his family when it is not practicable to obtain consent, the carrier may demand that such treatment and maintenance be accepted when required by the contagious nature of the disease, or when in the opinion of its medical officer such hospital treatment is imperative for the proper treatment of the disease or for the proper control of the patient. Cash benefit may be discontinued during refusal to submit to hospital treatment. Hospital treatment shall be furnished for the same period as cash benefit. This benefit may be provided in those hospitals with which the funds and societies have made satisfactory financial arrangements which have met the approval of the Social Insurance Commissioners, or in hospitals erected and maintained by the funds and societies with the approval of the Commission.

Sec. 14. Arbbitration Committee—All disputes between the insured and physicians, or between funds and physicians concerning medical benefits, shall be referred to special committees composed of representatives of the interests concerned, with an impartial chairman appointed by the commission, with an appeal to the Commission.

Sec. 15. Cash Benefit—A cash benefit shall be paid beginning with the fourth day of disability on account of illness; it shall equal two-thirds (66⅔ per cent) of the weekly wages of the insured member. It shall be paid to the same person for a period of over twenty-six weeks in any consecutive twelve months.

Sec. 16. Cash Benefit to Dependents—A cash benefit equal to one-third of the wages of an insured member receiving hospital treatment shall be paid to his family or other dependents while he is in the hospital.

Sec. 17. Periods of Payment—Cash benefits shall be paid weekly where possible, and in no case less frequently than semi-monthly.

Sec. 18. Maternity Benefits—Maternity benefits shall consist of:

All necessary medical, surgical and obstetric aid, materials and appliances, which shall be given insured women and the wives of insured men.

A weekly maternity benefit, payable to insured women, equal to the regular sick benefit of the insured, for a period of eight weeks, of which at least six shall be subsequent to delivery, on condition that the beneficiary abstain from gainful employment during period of payment.

Sec. 19. Funeral Benefit—The carrier shall pay the actual expenses of the funeral of a deceased insured member, as arranged for by the family or next kin, or in absence of such by the officer of the fund, up to the amount of $50. The funeral benefit shall be paid in case of death of a former member while in receipt of sick benefits or death within six months after discontinuance of sick benefits because of the exhaustion of the time limit, provided he has not, within those six months, returned to work.

Sec. 20. Additional Benefits—The carriers may grant additional or increased benefits, with the consent of the Commission.

Sec. 21. Extension of Insurance—When contributions cease on account of unemployment not due to sickness, the insurance shall continue in force for one week for each four weeks of paid up membership during the preceding twenty-six weeks.

Sec. 22. Division of Expenses—The expenses of the funds shall be met by contributions from employees, employers and the state. The state shall contribute one-fifth of the total expenditures for benefits, subject to the provisions of Section 42; one-half of the balance shall be paid by the employer, one-half by the employee, except that if the earnings of the insured fall below $9 a week, the shares of the employer, employee and state shall be the proportion indicated in the following schedule:

If earnings are under	But not under	Employer	Employee	State
$9	$8	48%	32%	20%
8	7	56%	24%	20%
7	6	64%	16%	20%
6	5	72%	8%	20%
5	..	80%	....	20%

In all cases the contributions shall be computed as a percentage of wages.

As social insurance will directly affect the practice and income of nearly all physicians as well as the business of the private hospitals and as there is scarcely any doubt but what legislation will be attempted and probably passed along these lines, it would be well for the physicians to make themselves fully acquainted with the working of the plans as demonstrated in Europe.

The committee on Medical Education reports that the number of Medical Colleges in the United States in 1915 has been reduced to 95. In 1904 it was 162. The number of medical students attending these colleges has decreased from 28,142 in 1904 to 14,891 in 1915.

The second meeting of the House of Delegates, June 13th. The House was called to order at 2 P. M. by the president, Rupert Blue, Washington, D. C. Dr. Blue thanked the House of Delegates for the high honor which they had conferred upon him by electing him president of the Association.

Report of the Reference Committee on Medical Education.—This committee recommends that after January 1st, 1918, no medical college be retained in Class A by the council of medical education that does not require for admission at least two years of work in a college of arts and sciences.

The committee also recommended that the council cooperate with the National Educational Association and with college associations and educational agencies in their efforts to save one or two years of the students' time during the period of elementary and high school education. The committee also endorses the recommendation of the council that a year's internship in an approved hospital be made an essential part of a medical curriculum, and that state licensing boards be urged

to make such hospital year a legal requirement for the licensee to practice medicine in their respective states. With this object in view, it is recommended that legal authority be obtained by the state licensing boards to inspect the hospitals in their respective states and establish rules governing their conduct and to list as approved only those complying with such rules. These recommendations were adopted by the House of Delegates.

Third meeting, Thursday afternoon, June 15th.—House of Delegates met and was called to order by the president. First order of business was the election of officers, with the following result:

President—Charles H. Mayo, Rochester, Minn.

First Vice-President—L. F. Barker, Baltimore.

Second Vice-President—John Leeming, Chicago.

Third Vice-President—J. Henry Carstens, Detroit.

Fourth Vice-President—George F. Keiper, LaFayette, Ind.

Secretary—Alexander R. Craig, Chicago.

Treasurer—William Allen Pusey, Chicago.

Chairman of the House of Delegates—Hubert Work, Pueblo, Colo.

Vice-Chairman of the House of Delegates—Dwight H. Murray, Syracuse, N. Y.

Members of the Board of Trustees—A. R. Mitchell, Lincoln, Neb.; Oscar Dowling, Shreveport, La.; E. J. McKnight, Hartford, Conn.

Judicial Council—J. A. Black, Pueblo, Colo.

Council on Health and Public Instruction—Frank Billings, Chicago.

Council on Medical Education—William D. Haggard, Nashville, Tenn.

Council on Scientific Assembly—J. Shelton Horsley, Richmond, Va.

All of which is respectfully submitted,

A. H. Levings.

The report of the Delegate to National Legislative Council was presented by Dr. G. Windesheim, and on motion duly seconded and carried, adopted as read.

REPORT OF THE DELEGATES TO THE NATIONAL LEGISLATIVE COUNCIL.

Mr. President, Members of the House of Delegates, State Medical Society of Wisconsin

By order of the Secretary of the National Body your delegate to the National Legislative Council, for want of closer affiliation, attended the conference of the A. M. A. held at Chicago on February 8th, 1916.

A joint meeting was held with the Federation of State Medical Boards at which features of medical practice acts were the chief topic of discussion. The paper by Ex-Governor Hodges of Kansas was received with enthusiasm and the chairman of your Committee on Health and Public Instruction ordered a number of copies sent to him for general distribution.

Judging from the papers and discussions presented, it would seem that the present Medical Practice Act of Wisconsin compares favorably with those of other states.

One part of the session was given over to the consideration of questions relating to public health organizations. Many and varied were the papers and discussions on this most vital subject; it appears however that short of a federal Department of Public Health, who would make a business of public health work in all its phases, and finance it as a business, no really satisfactory solution of the problem would present itself. The next best proposition would be the appointment of local or county whole time public health officers, medical or non-medical, under the control of the State Board of Health or State Health Officer.

Your delegate would recommend that this Society go on record as being in favor of the establishment of a federal Department of Health with a Secretary, a member of the Cabinet, at its head; and to urge every member of this Society to use his or her influence with the public that it will demand such an institution in the near future. That in the meantime communities be advised to appoint whole time officers, with the approval and under the control of the State Board of Health.

Respectfully submittel,

G. Windesheim.

The Reports of Councilors were presented from the 1st, 2nd, 3rd, 5th, 7th, 8th, 10th, 11th and 12th Districts.

The House of Delegates adjourned to meet Wednesday morning, Oct. 4th, 9:30 A. M., in the Senate Chamber.

MINUTES OF MEETING OF HOUSE OF DELEGATES WEDNESDAY, OCTOBER 4, 1916, 9:30 A. M.

Meeting called to order by the President.

Roll call by the Secretary.

The minutes of the previous meeting were read and approved.

The report of the Treasurer was presented by Dr. S. S. Hall, Ripon, and on motion duly seconded and carried was referred to an auditing committee of members of the Council to be appointed by the Chair.

TREASURER'S REPORT.

MEDICAL DEFENSE FUND.

Madison Wis., October 3, 1916.

S. S. Hall, Treasurer, in account with the State Medical Society of Wisconsin.

Debtor.

Balance on hand October 5, 1915	$2,848.59
Received from County Secretary	3,317.00
Total	$6,165.59

Creditor.

1915	
Nov. 8—Lines, Spooner, Ellis & Quarles	$2,500.00
Total	$2,500.00
Balance on hand	3,665.59
Total	$6,165.59

Respectfully submitted,

S. S. Hall,

Treasurer.

TREASURER'S REPORT.

Madison, Wis., Oct. 3, 1916.

S. S. Hall, Treasurer, in account with the State Medical Society of Wisconsin.

DEBTOR.

Balance on hand October 5, 1915	$4,247.34
Received from Secretary for County Dues	3,585.00
Total	$7,832.34

CREDITOR.

1915			
Dec. 22	Wisconsin Medical Journal	$900.00	$ 900.00

Councilors' Expenses.

Oct. 6	W. F. Zierath	$ 7.12	
	H. W. Abraham	9.40	
	J. M. Dodd	19.76	
1916			
Feb. 10	F.. T. Nye	10.40	
	G. Windesheim	31.00	
	T. H. Hay	9.50	
	J. M. Dodd	19.26	
	H. W. Abraham	6.00	
	Rolla Cairns	20.52	
	H. E. Dearholt, Luncheon, Councilors'	13.15	146.11

Legislative Expense.

1915			
Oct. 11	Raymond T. Zillmer, Atty.	$255.28	
	Arthur G. Sullivan	4.35	
	Louis F. Jermain	9.00	
	John J. McGovern	7.18	
	R. G. Sayle	5.28	
	J. Van de Erve	11.03	
	Phillip F. Rogers	7.00	299.12

Expense Secretary.

Nov. 2	Henry Sullivan Engrv. Co., Letter Heads	$ 2.75	
	Waupun Democrat, Badges	3.50	
	Rock Sleyster	12.57	
	Appleton Volksfreund, Printing	64.50	
Nov. 23	The Post Publishing Co., Appleton	13.30	
1916			
Mar. 16	Siekert & Baum Stationery Co.	$ 5.43	
	Appleton Volksfreund	45.79	
Apr. 11	Rock Sleyster	26.72	
May 3	Rock Sleyster	4.95	
	Henry Sullivan Engrv. Co., Stationery	5.75	
June 6	Rock Sleyster, Stamped Envelopes	5.60	
	Cannon Printing Co.	26.00	
Sept. 1	Rock Sleyster	38.06	
Sept. 30	Henry Sullivan Engrv. Co.	10.50	
	Rock Sleyster	6.08	271.50

Public Health and Instruction.

July. 17	Wis. Anti-Tuberculosis Association	$ 31.25	
Aug. 22	D. R. Mendenhall	100.00	
Sept. 30	Wis. Anti-Tuberculosis Association, Crusaders	46.00	
Sept. 20	Am. Asso. for Labor Legislation, Insurance	10.00	187.25

1915			
Oct. 13	H. N. Wilson	$ 15.00	
	Hotel Wisconsin, Secty. Banquet	27.70	
Oct. 26	Dr. Chester M. Echols	23.45	
Oct. 28	Dr. F. T. Murphy	20.00	
Nov. 8	Dr. Llewellys F. Barker, Baltimore	55.60	
1916			
Sept. 30	M. B. Glasier, a/c County Secy. Meeting	4.03	
	S. S. Hall, Incidentals	20.00	165.78
Mar. 16	Goodwin, McDermott & Cowen, Steg.	$206.20	206.20
Apr. 11	Rock Sleyster, Salary ¼ Yr.	$150.00	
July 6	Rock Sleyster, Salary ¼ Yr.	150.00	
Sept. 30	Rock Sleyster, Salary ¼ Yr.	150.00	
	S. S. Hall, Salary Year 1916.	200.00	650.00

Total	$2,825.76
Balance on hand	5,006.38
Total	$7,832.34

Respectfully submitted,

S. S. Hall,
Treasurer.

The following were appointed by the President as Auditing Committee, Dr. Cairns, Dr. Dodd and Dr. Redelings.

The report of the Secretary was presented by Dr. Rock Sleyster, Waupun, and on motion duly amended, seconded and carried, the report was accepted as read and a vote of thanks tendered to the Secretary for his able and thorough report.

REPORT OF THE SECRETARY FOR THE PERIOD OF JAN. 1ST TO OCT. 3RD, 1916.

The year 1915 closed with 54 component county organizations, an increase of one accounted for by the organization of a society in Ozaukee County. A total of 1791 paid dues in the state society for the year. This is an increase of 31 over the previous year and the largest

membership by that number that we have ever had. It represents about 65% of the licensed physicians of the state and about 95% of those who are eligible and desirable for membership. By way of comparison, we are, today, the best organized of the middle west states, and rank among the three or four best organized in the union.

The incomplete report for the year 1916 follows and you will bear in mind that three months remain for active work. Attached is a table showing the 1915 membership complete, and the 1916 membership to date, the losses or gains, the number of delinquents, deaths, removals and new members. This data is given for each county and district in the state.

STATE MEDICAL SOCIETY OF WISCONSIN.

MEMBERSHIP REPORT.

Sept. 3, 1916.

County Society	1915 (Complete)	1916 (Oct. 3)	Loss — Gain +	Delinquent	Removals	Deaths	New Members
1st District—							
Dodge	37	35	—2	1	3	0	2
Jefferson	32	27	—5	2	1	1	1
Washington	16	13	—3	2	1	2	1
Waukesha	46	46	0	1	1	0	2
	131	121	—10	6	6	3	6
2nd District—							
Kenosha	33	27	—6	5	4	0	2
Racine	40	40	0	0	1	0	1
Walworth	29	28	—1	0	1	0	1
	102	95	—7	5	6	0	4
3rd District—							
Dane	100	102	+2	1	0	2	5
Columbia	30	31	+1	1	2	1	3
Green	19	19	0	0	0	1	0
Rock	56	54	—2	3	1	3	3
Sauk	21	19	—2	2	0	0	0
	226	225	—1	7	3	7	11
4th District—							
Crawford	10	8	—2	2	0	0	0
Grant	45	46	+1	1	2	0	2
Iowa	13	14	+1	0	1	0	2
La Fayette	18	18	0	1	1	0	2
Richland	13	11	—2	3	0	0	1
	99	97	—2	7	4	0	7
5th District—							
Calumet	14	13	—1	0	2	0	1
Manitowoc	26	28	+2	0	0	0	3
Ozaukee	7	10	+3	0	0	0	3
Sheboygan	46	46	0	0	2	0	2
	93	97	+4	0	4	0	9
6th District—							
Brown-Kewaunee	42	39	—3	5	2	0	3
Door	10	10	0	0	0	0	0
Outagamie	35	37	+2	0	0	0	3
Fond du Lac	55	58	+3	0	0	0	3
Winnebago	72	66	—6	1	2	4	1
	214	210	—4	6	4	4	10
7th District—							
Juneau	12	11	—1	1	0	0	0
La Crosse	38	36	—2	0	4	1	1
Monroe	19	19	0	0	2	0	2
Tremp.-Jackson-Buf.	27	24	—3	3	4	0	3
Vernon	14	16	+2	1	0	0	3
	110	106	—4	5	10	1	9
8th District—							
Marinette-Florence	26	21	—5	3	1	1	0
Oconto	7	7	0	0	0	0	0
Shawano	22	20	—2	1	3	0	1
	55	48	—7	4	4	1	1
9th District—							
Clark	17	18	+1	1	1	1	3
Green Lake-W.-A.	25	24	—1	2	0	0	1
Lincoln	12	12	0	0	0	0	0
Marathon	36	34	—2	1	0	1	0
Portage	21	22	+1	0	0	0	1
Waupaca	27	28	+1	0	0	0	1
Wood	25	25	0	0	0	0	1
	163	163	0	4	1	2	7
10th District—							
Barron-P.-W.-S. B.	33	32	—1	4	0	0	3
Chippewa	21	17	—4	5	0	0	0
Dunn-Pepin	18	21	+3	1	0	0	5
Eau Claire	39	37	—2	0	2	2	2
Pierce	12	9	—3	3	0	0	0
Rusk	10	9	—1	0	1	0	0
St. Croix	19	21	+2	0	0	0	2
	152	146	—6	13	3	2	12
11th District—							
Ashland-B.-I.	27	27	0	1	0	0	1
Douglas	36	37	+1	2	0	1	4
Langlade	14	13	—1	0	1	0	0
Oneida-Forest-Vilas.	11	11	0	0	0	0	0
Price-Taylor	13	12	—1	1	1	0	0
	101	100	—1	4	2	1	5
12th District—							
Milwaukee	338	355	+17	24	6	2	26
Totals	1791	1763	—28	81	53	23	107

DIGEST OF TABLES.

Two districts show a gain—the 12th, 17; the 5th, 4. One district remains the same as last year—the 9th. Nine districts show a loss, the 1st, 10; the 2nd and

8th, 7; the 10th, 6; the 6th and 7th, 4; the 4th, 2; and the 3rd and 11th, 1.

The 5th district has no delinquents, the 12th has 24, the 10th 13, the 3rd and 4th 7, the 1st and 6th 6, the 2nd and 7th 5, the 8th, 9th and 11th 4.

The 12th district has 26 new members; the 10th, 12; the 3rd 11; 6th, 10; 5th and 7th, 9; 4th and 9th 7; 1st, 6; 11th, 5; 2nd, 4; and 8th, 1.

Sixteen counties show a gain, 12 are the same as last year and 26 show a loss. The greatest losses were Kenosha and Winnebago 6, Jefferson and Marinette 5, Chippewa 4, Washington, Trempealeau and Pierce 3. The greatest gains were Milwaukee 17, Ozaukee, Fond du Lac, and Dunn-Pepin 3.

Twenty-two counties have no delinquents. The greatest number are found as follows: Milwaukee 24; Chippewa, Brown, and Kenosha 5, Barron 4, Rock, Richland, Trempealeau, Marinette, and Pierce 3 each.

Forty counties have reported 107 new members during the year. Fourteen counties have reported no new members.

Total membership Dec. 31, 1914.....1743
Total membership Dec. 31, 1915.....1791
Total membership Oct. 3, 1916.....1763

Delinquents 1914 meeting, 93; 1915—89; 1916—81.

Deaths and Removals 1914 meeting, 100; 1915—58; 1916—76.

New members 1914 meeting, 157; 1915—133; 1916—107.

A study of the above tables together with a review of the past year's work lead to the same conclusions as advanced in the report of the secretary last year. From the organization standpoint the hard work during the "Booster" campaigns has resulted in bringing nearly every eligible and desirable physician into the society. Few remain outside. It becomes increasingly difficult each year to keep the membership to the numerical standard we have attained for while our losses remain about the same each year, the number of new members is falling off regularly as shown you. This is due to two causes—the fewer number of new men coming to the state because of increased educational and statutory requirements and the apparent exhaustion of the field of old reliable and eligible non-members. Our gains of the past three years have been possible only because we have canvassed this last field carefully each year and worked for the application of each man who should belong, and because we have sent from the state secretary's office monthly personal appeals to the delinquents. The secretary feels certain that while the future promises an increasingly better quality of membership, we have reached our approximate maximum number and that very shortly the losses through deaths, removals and delinquents will exceed the number of new men entering practice in the state. This will inevitably bring up a serious question of financing the society if our activities are to be increased or even held where they are. I believe that an increase in dues at this time is inadvisable. It would but result in a serious loss in membership as any county secretary will tell you. I believe, however, that with an eye to the future, the councilors, the county officers and the members of this House should begin a campaign of education among the members on this subject. They should be made to realize that they are receiving membership in three organizations, the Journal and medical defense at a ridiculously low figure; that the benefits to be derived from the organization cannot but bear a direct relation to the amount they contribute to its support; and that if we are to be a progressive society our expenses will increase much faster than our income, for it would appear that our income has reached its limit unless an increase in dues be made.

The first big problem which confronted us has been met —that of organization. We stand today one of the three or four best organized states in the union. We have the men—now what can we do for them with the means we have at hand. An organization which has grown until it embraces practically all of the reputable physicians of a great state should accomplish for the public and for its members a progressive program of betterment. The state medical society was planned for service—service to the public and service to its members. A discussion of this subject at the January meeting of the Council resulted in the program of this afternoon. The problems taken up at the County Secretaries' meeting this afternoon are full of possibilities. They point out the wonderful possibilities of this organization and the ideals we should strive to attain. As a result of this program we expect to make a beginning this winter of a plan to carry post-graduate work to our members with the aid of the University of Wisconsin and Marquette University. Their full time teachers will be made available for county society work.

During the past year we have accomplished more than ever before. The interest shown in the society by our members was proven by an attendance of one-third of the membership at the last state meeting. Nearly six hundred registered. This is the largest attendance we have ever had and in reading reports of other state meetings throughout the year I have failed to see its equal.

The Journal, owned and published by the society, has been issued monthly and compares most favorably with the other state Journals. The Editors are to be congratulated on its excellence and should receive the encouragement and support of every member. Medical defense continues to assist all worthy members when in an hour of need they want the support and protection of their own profession.

The new Committee on Health and Public Instruction has made a splendid showing with the means placed at their command. A survey of all public health activities in the state has been made and will be published in a future number of the Journal. Literature intended for public instruction and suitable for the reception room table has been distributed to the members of nineteen county societies and this work will be extended this coming year. The Crusader, the publication of the Wisconsin Anti-tuberculosis Association, has been mailed to every member of the state society. The Committee has used its best efforts to have held a public health meeting open to the public in each county of the state. Encouragement and publicity was given the tuberculosis clinics

of Dr. Pottenger at Wauwatosa and Milwaukee. Dr. Dorothy Reed Mendenhall of Madison was engaged to make an investigation of infant mortality in the state, and will bring her report to the society Friday morning.

During the past year your secretary has visited ten of the component societies. He has been impressed almost everywhere with the improvement made in these organizations and the evidences of better feeling and less of the old time professional jealousy. The members want to accomplish things but almost always rely on the county secretary to plan and lay out the work. In the societies which are inactive it is nearly always due to the fact that they have chosen the wrong man for this position. Of course there are exceptions, but at the risk of tiring you I want again to emphasize the necessity, absolute necessity, of choosing the right man for secretary of your county society. The success of this state organization rests most largely on the shoulders of its fifty-four county secretaries, and it is they who deserve most of the credit for the success we have attained.

In closing I wish to express my appreciation of the privilege it has been to serve our society again in this capacity. I want to thank the county secretaries, the members of the Council and other interested workers for the loyal support they have at all times given me, and to ask for advice and suggestions for making the office of more real service to our members.

Respectfully submitted,

ROCK SLEYSTER,
Secretary.

A motion was duly made that in electing delegates to the Americal Medical Association, one of the delegates shall be the secretary of the State Medical Society, and that the delegates except for the State Secretary should serve for three years, one to be elected every year, the Secretary to be re-elected, if he were still Secretary of the State Medical Society.

After considerable discussion, an amendment was duly moved to the effect that the State Society pay the expenses of the Secretary as one of the delegates to the American Medical Association, which motion was duly seconded.

After further discussion the original motion was withdrawn and the suggestion made that it is the sense of the House of Delegates that the Secretary of the State Medical Society be a delegate from the State Medical Society to the American Medical Association.

A motion was then made that the present Secretary be elected a delegate to the American Medical Association for the three year term, which motion was duly seconded and carried.

On motion duly made and carried Dr. H. M. Brown was duly elected Delegate to the American Medical Association for the two year term.

On motion duly made, seconded and carried the rules were suspended and the Secretary instructed to cast the ballot of the House of Delegates for Drs. M. L. Wilkinson, T. W. Nuzum and W. E. Bannen, as alternates, in the order named respectively for the three, two and one year term respectively, and they were declared duly elected.

On motion duly seconded and carried the rules were suspended and the Secretary instructed to cast the ballot of the House of Delegates for Dr. J. M. Dodd as Councilor for the 11th District, and he was duly declared elected as such.

The names of Dr. J. P. McMahon and Dr. D. J. Hayes were placed in nomination for the office of Councilor of the 12th District and the House of Delegates proceeded to vote by ballot on such nominations, and Dr. Hayes, having received the majority of the votes cast was duly declared elected as Councilor of the 12th District.

Dr. Dwight announced for consideration of the House of Delegates the proposition of dividing the sessions of the Society into sections to meet the requirements of the different branches of the practice of medicine and surgery.

On motion duly made, seconded, amended and carried, the committees from B to G in the printed handbook were, under suspension of the rules and by instruction to the Secretary to cast the ballot of the Association for the members of such committees, duly elected as such committees for the ensuing year, and the Committee on Public Policy and Legislation, consisting of three members, as originally constituted, was by amendment to the original motion delegated to be appointed by the incoming President.

A motion was duly made, seconded and carried, that a committee on compulsory health insurance, consisting of the special *ad interim* committee appointed by the President, be appointed by the President, and that this committee assume the legislative duties incident to the work.

A motion was duly made, seconded and carried that the committee on compulsory health insurance be permitted to draw on the treasurer for expenses of that committee to the extent of not more than $150.

On motion duly seconded and carried the House of Delegates adjourned to meet at 8:15 A. M., Oct. 5, 1916, at the Senate Chamber.

MEETING OF THE HOUSE OF DELEGATES THURSDAY, OCT. 15, 1916, 8:15 A. M.

Meeting called to order by the President.

Roll call dispensed with.

Minutes of the previous meeting read and approved.

A motion was duly made, seconded and carried that an abstract of the proceedings of the House of Delegates, the Council and reports of Secretary and Treasurer be read before the General Session.

The report of the Nominating Committee was presented to the House of Delegates nominating Dr. Hoyt E. Dearholt, Milwaukee, President; Dr. Joseph Smith, Wausau, 1st Vice-President; Dr. J. G. Babcock, Cumberland, 2nd Vice-President; Dr. J. F. Pember, Janesville, 3rd Vice-President. and on motion duly carried the

report was accepted and the officers nominated duly declared elected.

The Secretary read a report on feeble-mindedness presented by Dr. Edward Evans on behalf of a Committee of Social Workers, and on motion duly carried the House of Delegates endorsed the work being done, and the Legislative Committee instructed to aid in securing the passage of legislation suggested.

A resolution that the Wisconsin State Medical Society approve and urge the legislation pending in the United States Congress for the creation of a federal department of health with the secretary, a member of the Cabinet, at its head, and that a copy of this resolution be sent to all the members of Congress from Wisconsin, was offered by Dr. Warfield and on motion duly carried was adopted.

A motion was made that the plan of sectioning the State Medical Society of Wisconsin at its annual meeting as laid out by the President in his annual address be approved and henceforth carried out and was discussed at some length, and thereafter carried.

A resolution was offered by Dr. Zierath as follows:

Be it resolved by the House of Delegates of the State Medical Society of Wisconsin that we commend the principle of compulsory health insurance and that we pledge our support in the enactment of that principle into law, which resolution was, on motion duly carried, adopted.

The House of Delegates adjourned to meet at 8:15 A. M., Friday, Oct. 6, 1916.

MINUTES OF MEETING OF THE HOUSE OF DELEGATES FRIDAY MORNING, OCTOBER 6, 1916,

8:15 A. M.

Meeting called to order by the President.

Roll call was dispensed with.

Minutes of the previous meeting read and approved as read.

The report of the Auditing Committee was presented by Dr. J. M. Dodd, and on motion duly seconded and carried, was adopted.

On motion duly seconded and carried Milwaukee was selected as the next meeting place.

On motion duly seconded and carried the then acting president was instructed to submit to the Governor a list of twelve names from which to choose members of the State Board of Medical Examiners.

On motion duly seconded and carried the House of Delegates adjourned *sine die.*

BOOK REVIEWS

Bacteriology, General, Pathological and Intestinal. By Arthur I. Kendall, B. S., Ph. D., Dr. P. H. Professor of Bacteriology in the Northwestern University Medical School, Chicago, Ill. Octavo, 651 pages, with 98 engravings and 9 colored plates. Cloth, $4.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

As knowledge of a subject advances, text books must change their character, and take cognizance of the new relationships which are from time to time discovered. Bacteriology a few years ago was all morphology with cultural characteristics, staining reactions and pathogenicity. So little was known of the intersection of the bacteria and the host, and so little of the chemistry of bacteria that text books contained no mention of these now important subjects.

The new work by Dr. Kendall is therefore quite different from the old text books on Bacteriology. Dr. Kendall has done most interesting research in the Chemistry of bacteria and no one is more competent to write on this latest addition to bacteriology than he is.

He divides his book into five Sections. Section I.—General Bacteriology. In this are such chapter headings as The Morphology of Bacteria; The Physiology of Bacteria and the Effect of Environmental Influences; The Chemistry of Bacteria; Bacterial Metabolism; Infection and Immunity; Anaphylaxis; Antigens and the Technique of Serum Reactions, etc., etc. Section II.—Pathogenic Bacteria. This includes the Treponemata and Spirochcta. Section III.—Higher Bacteria, Molds, Yeasts, Filterable Viruses, and Diseases of Unknown Etiology. Section IV.—Gastro-Intestinal Bacteriology. Section V.—Applied Bacteriology.

It is an excellent book in every respect. We have enjoyed reading it and feel that we can highly recommend it to students and doctors.

The book is attractively made and the illustrations are quite satisfactory.

BOOKS RECEIVED.

A Textbook of Practical Therapeutics, with especial reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics, materia medica, and Diagnosis in the Jefferson Medical College Hospital; one-time Clinical Professor of diseases of children in the University of Pennsylvania. Sixteenth edition, enlarged, thoroughly revised, and largely rewritten. Illustrated with 149 engravings and seven plates. Lea & Febiger, Philadelphia and New York, 1916.

"Oral Abscesses." By Kurt H. Thoma, D. M. D., Lecturer on oral histology and pathology and member of the research department of Harvard University Dental School, Instructor in Dental Anatomy, Harvard Medical School, Oral Surgeon to the Robert B. Brigham Hospital, Visiting Dental Surgeon to the Long Island Hospital, Consulting Oral Surgeon to the Boston Dispensary. Boston, Ritter & Company, 1916.

LIST OF MEMBERS OF THE STATE MEDICAL SOCIETY OF WISCONSIN

Abaly, W. C., Madison.
Abbott, Le Roy, Ontario.
Abelmau, T. H. C., Watertowu.
Abraham, H. W., Appleton.
Ackerly, A. W., Milwaukee.
Ackley, S. B., Oconomowoc.
Ackerman, Wm., Milwaukee
Adams, G. F., Kenosha.
Adams, J. C., Superior.
Addleman, I. M., Wausau.
Albers, H. H., Alleuton.
Alcome, D. N., Stevens Poiut.
Alderson, J. C., Wausau.
Aldridge, H. W., Maultowoc.
Alexander, G. L., Milwaukee.
Alexander, Sara W., Hndsou.
Alexander, W. S., Oakfield.
Allen, C. F., Middleton.
Alleu, Jessie P., Beloit.
Allen, L. P., Oshkosh.
Allen, W. E., Snu Prairie.
Allen, W. J., Beloit.
Alley, H. C., Eleva.
Allison, Elizabeth, Madison.
Altman, Maurice, Milwaukee.
Amundson, A. C., Cambridge.
Amundson, K. K., Cambridge.
Amundson, P. B., Mondovi.
Auderson, Jens, Racine.
Audre, F. E., Kenosha.
Andrews, G. F., De Sota.
Audrews, M. P., Beloit.
Andrews, Neil, Oshkosh.
Andrus, A. P., Ashland.
Antoine, F. J., Prairie du Chien.
Aplin, F. W., Waukesha.
Armbruster, B. F., Milwaukee.
Armstrong, C. A., Prairie du Chien.
Armstrong, C. E., Oconto.
Armstrong, L. G., Boscobel.
Arnold, F. W., Milwaukee.
Arveson, R. G., Fredrick.
Ashley, T. W., Kenosha.
Ashum, D. W., Eau Claire.
Aubin, J. M., Peshtigo.
Aus, J. L. N., Deer Park.
Axley, A. A., Butternut.
Axtell, E. E., Marinette.
Axtell, Lnella E., Marinette.
Aylward, R. C., Madison.
Baaseu, J. M., Mt. Calvary.
Babcock, Frank, Haugen.
Babcock, I. G., Cumberland.
Bach, J. A., Milwaukee.
Bachhuber, A. E., Mayville.
Bachhnber, L. M., Mayville.
Baer, A. N., Milwaukee.
Baer, C. A., Milwaukee.
Bailey, M. A., Fennimore.
Bair, F. M., Lake Mills.
Baird, John, Superior.
Baird, J. C., Eau Claire.
Baker, Geo., Tomahawk.
Baker, J. C., Hawkins.
Baker, J. H., Bryant.
Baker, W. F., Birnamwood.
Baldwin, F. H., Bloomington.
Baldwin, G. E., Green Lake.
Balkwill, C. A., Grafton.
Bancroft, H. V., Blue Mounds.
Banks, W. H., Windom, Minn.
Bannen, W. E., La Crosse.
Barber, J., Marathon.
Bardeen, C. R., Madison.
Barnes, E. C., Ripon.
Barnes, H. T., Pewaukee.
Barnes, J. S., Milwaukee.
Barnette, J. R., Sr., Neenah.
Barnette, J. R., Jr., Neenah.
Barnstein, Chas., Tlmothy.
Barnstein, J. E., Manitowoc.
Barrett, E. J., Sheboygan.
Barth, G. P., Milwaukee.
Bartran, W. H., Green Bay.
Batchelet, C. W., Pine River.
Batchelor, W. A., Milwaukee.
Batty, A. J., Portage.
Bath, Dane, Oshkosh.
Bauch, C. W., Milwaukee.
Bauer, K. T., Milwaukee.
Baum, E. L., Milwaukee.
Bear, W. G., Monroe.
Beck, A. A., Coloma.
Becker, B. A., Silver Lake.
Becker, W. F., Milwaukee.
Beckman, C. R., La Crosse.
Bedford, Edgar, Sheboygan.
Beebe, C. M., Sparta.
Beebe, C. S., Milwaukee.
Beebe, L. W., Superior.
Beebe, P. A., Glenwood.
Beebe, S. D., Sparta.
Beech, G. D., Adams.
Beesou, H. B., Cornell.
Beffel, J. M., Milwaukee.
Belitz, A., Mouroe, Utah.
Belitz, Wm., Cochran.
Bell, A. R., Tomah.
Bellack, B. F., Colnmbus.
Bellin, Joseph J., Green Bay.
Bellin, Julius J., Greeu Bay.
Bellis, G. L., Wauwatosa.
Beltiug, G. W., Orfordville.
Bennett, L. J., Ft. Atkinson.
Bennett, W. C., Rhinelander.
Benson, G. H., Richland Center.
Bentley, F. D., Portage.
Barger, A. J., New Holstein.
Bergland, S., Marinette.
Barnhard, A., Milwaukee.
Bernstein, M. A., Kenosha.
Bertrand, J. H., De Forest.
Betz, J. C., Boscobel.
Beutler, W. F., Wauwatosa.
Beyer, H., Pittsville.
Bickel, E. F., Oshkosh.
Bill, B. J., Genoa Junction.
Bilstad, G. E., Cambridge.
Binnewies, F. C., Janesville.
Binnic, Helen A., Poynette.
Binne, Jno., Poynette.
Bird, H. R., Madison.
Bird, M. D., Marinette.
Birbeck, S., Gratiot.
*Bishop, L. A., Fond du Lac.
Black, N. M., Milwaukee.
Blackburn, F. E., Cassville.
Blair, J. C., Hazel Green.
Blanton, Smiley, Madison.
Blekking, J. H., Stratford.
Blewett, M. T., Markesan.
Blumenthal, R. W., Milwaukee.
Blumer, E., Monticello.
*Bock, J. J., Lancaster.
Bock, O. B., Sheboygan.
Boddeu, A. M, Milwaukee.
Boerner, R. W., Milwaukee.
Booher, J. S., Richland Center.
Bolton, E. L., Chilton.
Boosse, L., Milwaukee.
Boothby, E. L., Hammond.
Borchardt, A. C., New London.
Borden, F. R., Plainfield.
Boren, J. W., Marinette.
Bornstein, Max, Milwaukee.
Bossard, H. C., Richfield.
Bossard, M., Spring Green.
Bothwell, D. F., Pardeeville.
Bowen, C. F., Richland Center.
Bowen, H. P., Johnson Creek.
Boyce, S. R., Madison.
Boyd, C. D., Kaukauna.
Boyd, G. T., Fond du Lac.
Boynton, R. D., Grand Marsh.
Bradbury, E. L., Neillsville.
Bradfield, J. A. L., La Crosse.
Bradford, E. B., Hudson.
Bradley, H. E., Milwaukee.
Brady, D. L., Cuba City.
Braun, O., Ashland.
Breckenridge, H. E., Racine.
Brehm, H. J, Racine.
Brehm, T., Racine.
Brey, P. F., Milwaukee.
Briggs, S. J., Madison.
Broache, A. H., Oshkosh.
Brockway, F., Wales.
Broghammer, F. G., Superior.
Brook, J. J., Milwaukee.
Brooks, E. H., Appleton.
Brown, A. D., Mineral Point.
Brown, A. L., Wausau.
Brown, E. B., Beloit.
Brown, G. V. I., Milwaukee.
Brown, H. M., Milwaukee.
Brown, I. M., New London.
Brown, J. F., Sparta.
Brown, R. C., Milwaukee.
Brueckbauer, G., Plymouth.
Brueckbauer, H. G., Sheboygan.
Bruess, Julius, Milwaukee.
Brumhaugh, E. V., Milwaukee
Brunckhorst, F. O., Hortonville.
Bryant, J. R., Wausau.
Buchan, S. C., Racine.
Buchanan, R. C., Green Bay.
Buck, G. C., Platteville.
Buckmaster, S. B., Janesville.
Buehler, J. W., Prairie du Sac.
Bugher, C. E., Ladysmith.
Bunch, M. M., Oshkosh.
Bunting, C. H., Madison.
Burdon, R. M., Green Bay.
Burkhart, E. W., Menomonee Falls.
Burns, H. J., Hudson.
Burns, J. W., Soudan, Minn.
Burns, O., Winneconne.
Burton, J. J., Milwaukee.
Busse, A. A., Jefferson.
Butler, E. F., Mosinee.
Butler, F. E., Menomonie.
Cady, M. P., Birnamwood.
Caffrey, A. J., Milwaukee.
Cahoon, Rodger, Baraboo.
Cain, C. L., Elmwood.
Cairns, Rollo, River Falls.
Caldwell, H. C., St. Croix Falls.
Caldwell, Margaret, Waukesha.
Calkins, H. J., Shawano.
Callahan, J. L., La Crosse.
Calvey, P. J., Fond du Lac.
Camphell, L. A., Clear Lake.
Camphell, W. B., Menomonee Falls.
Canright, O. S., Harkens, Ohio.
Cautwell, W. H., Shawano.
Caples, B. M., Waukesha.
Cargill, N. W., Milwaukee.
Carhart, C. A., Milwaukee.
Carmichael, C. S., Helenville.
Carnachan, G. M., Bruce.
Carter, R. M., Green Bay.
Carthaus, A. H. C., Thiensville.
Cary, E. C., Reedsville.
Cary, L. W., Winnebago.
Casey, M., Almond.
Cassels, G. S., Port Washington.
Cassidy, W. W., Durand.
Caswell, H. O., Ft. Atkinson.
Caughey, C. R., Kenosha.
Cavanaugh, T. E., Milwaukee.
Caveney, J., Milwaukee.
Chandler, F. E., Waupaca.
Chandler, J., Pardeeville.
Chaney, E., Wauwatosa.
Chapman, F. M., Milwaukee.
Charbonneau, E., Superior.
Charles, C. H., Antigo.
Chilson, B., Beloit.
Chloupek, C. J., Green Bay.
Chorlog, J. K., Madison.
Christensen, E., Two Rivers.
Christensen, F. C., Racine.
Christian, E. F., La Crosse.
Christiansen, C., La Crosse.
Christianson, J. W., Westby.
Christofferson, A. J., Poysippi.
Christofferson, H. H., Colby.
Christofferson, P. J., Waupaca.
Churchill, B. P., Milwaukee.
Clark, Burton, Oshkosh.
Clark, F. T., Waupun.
Clark, M. H., Ripon.
Clark, R. B., Monroe.
Clark, W. T., Ft. Atkinson.
Clason, J. A., Fond du Lac.
Clawson, H. E., Red Granite.
Cleary, B. L., Edgertou.
Cleary, J. H., Kenosha.
Coerper, E. E., Fredonia.
Coffey, C. J., Milwaukee.
Cohn, A. H., Milwaukee.
Coleman, H. M., Barron.
Collins, D. B., Madison.
Collins, W. P., Racine.
Comhacker, H. E., Osceola.
Comhacker, L. C., Osceola.
Combs, C. J., Oshkosh.
Comee, W. C., Seymour.
Conkey, C. E., Superior.
Conklin, G. H., Superior.
Conley, J. M., Oshkosh.
Connell, D. R., Beloit.
*Connell, J. P., Fond du Lac.
Connell, F. Gregory, Oshkosh.
Conzelmann, F. J., Winnehago (removed)
Cook, C. S., Evansville.
Cook, E. H., Watertown.
Cook, F. S., Eau Claire.
Cooksey, R. T., Madison.
Coon, G. E., Milton Junction.

*Deceased.

Coon, J. W., Waukesha.
Cooney, E., Appleton.
Cooper, C. A., Norwalk.
Copelaud, E., Milwaukee.
Corbett, J. F., Plymouth.
Corbett, M. E., Oshkosh.
Corlett, M. S., Westgate, Iowa.
Cornwall, W. B, Turtle Lake.
Corr, A. B., Juneau.
Corr, J. T., Racine.
Corry, F. M., Menasha.
Cottingham, M. D., Lake Geneva.
Couch, E. E., Clintonville.
Cowan, W. F., Stevens Point.
Cox, A. J., Superior.
Crane, M. C., Osseo.
Creasy, L. E., So. Wayue.
Cremer, C. H., Cashton.
Crikelair, F. L., Green Bay.
Cristman, E. S., Almena.
Crocket, W. W., Beloit.
Crommett, H. B., Amery.
Cron, C. O., Camp Douglas.
Crone, V. D., Manitowoc.
Cronyn, W. J., Milwaukee.
Croshy, E. P., Arnott.
Croshy, G. W., Sheboygan.
Crowe, N. F., Walworth.
Cummings, J. H., Superior.
Cunningham, J. N., Stanley.
Cunningham, M. A., Janesville.
Cunningham, R. B., Cadotte.
Cunningham, Wilson, Platteville.
Curless, G. W., Walworth.
Currens, J. R., Two Rivers.
Curres, P. M., Milwaukee.
Cutler, J. S., Wauwatosa.
Cutter, J. D., Tomahawk.
Dahl, L. A., Menomonie.
Dailey, P. J., Milwaukee.
Dana, A. C., Fond du Lac.
Danforth, Q. H., Omro.
Daniels, A. D., Rhinelander.
Daniels, L. J., Milwaukee.
Daniels, W. N., Mosinee.
Darby, G. S., Brodhead.
Darling, E., Milwaukee.
Darling, F. E., Milwaukee.
Darling, W. G., Milwaukee.
Darling, W. H., Hudson.
Davelaar, G. W., Milwaukee.
Davies, R. E., Waukesha.
Davis, F. A., Madison.
Dawley, G. T., New London.
Dawley, J. H., Laona.
Dawson, C. A., River Falls.
Dawson, D. W., Rice Lake.
Dean, F. C., Madison.
Dean, J. P., Madison.
Dean, Jos., Madison.
Dearholt, Hoyt E., Milwaukee.
De Besch, J., Milwaukee.
De Both, E. R., Green Bay.
Decker, C. O., Crandon.
De Cock, J. L., Angelica.
Deicher, H. F., Plymouth.
Delaney, H. O., Beloit.
Del Marcelle, C. C., Neenah.
De Neveu, A. C., Wyocena.
Denham, J. F., Downsville.
Dennis, J. F., Waterloo.
Derge, H. F., Eau Claire.
Dernehl, P. H., Milwaukee.
Devine, C. B., Marshall.
De Voe, C. A., Berlin.
De Wane, J. C., Boyceville.
Dewey, Richard, Wauwatosa.
De Wire, M. V., Sharon.
Dickenson, G. H., Milwaukee.
Dietrich, P. H., Ashland.
Dill, G. M., Prescott.
Dillman, A. E., Stenben.
Dodd, J. M., Ashland.
Doege, K. W., Marshfield.
Doern, W. G., Milwaukee.
Doerr, Aug., Milwaukee.
Dohearty, F. P., Appleton.
Domann, W. C., New Butler.
Donaldson, F. E., Kaukauna.
Donaldson, G. F., Shlocton.
Donnell, J. E., Cuba City.
Donnelly, F. J., Monches.
Donohue, E. J., Antigo.
Donohue, M. J., Antigo.
Donohue, W. E., Manitowoc.
Donovan, J., Forrestville.
Donovan, J. P., Madison.
Doolittle, J. C., Lancaster.
Doolittle, S. W., Lancaster.
Dougherty, C. F., Richland Center.
Doughty, P. H., Lowell.
Doyle, J. H., Little Chute.
Doyle, J. N., Neshkora.
Drake, F. I., Mendota.
Draper, M. H., Deerfield.
Drew, R. J., Auburndale.
Drexel, A., Milwaukee.
Dreyer, R. A., Wheeler.
Dries, Jos., Milwaukee.
Driessel, H., Kewaskum.
Driessel, S. J., Barton.
Drissen, W. H., Port Washington.
Dunu, E. A. A., Platteville.
Dunseth, G. O., Dalton.
Durr, W. E., Milwaukee.
Dusenbury, G. E., Amherst.
Dwight, C. G., Madison.
Eames, H. F., Egg Harbor.
Eastman, J. R., Kenosha.
Echols, C. M., Milwaukee.
Eck, G. E., Lake Mills.
Edwards, A., Reedsburg.
Edwards, A. C., Arcadia.
Edwards, H. J., Milwaukee.
Edwards, W. A., La Crosse.
Egan, G. J., La Crosse.
Egdahl, A., Menomonie.
Egland, G. R., Sturgeon Bay.
Ehmer, J. W., Lomira.
Eickelberg, F. A., Reeseville.
Eidam, W. L., La Crosse.
Ekblad, V. E., Superior.
Elfers, J. C., Sheboygan.
Ellenson, E. P., Chippewa Falls.
Elliott, E. S., Fox Lake.
Elliott, J. T., Rhinelander.
Ellis, W. E, Prentice.
Ellis, W. H., Barron.
Elmergreen, R., Milwaukee.
Elsom, J. C., Madison.
Elvis, E. B., Medford.
English, J. E., Baraboo.
Engsberg, W. A, Lake Mills.
Ennis, S. A. J., Shullsburg.
Epley, O. H., New Richmond.
Erdman, C. H., Stanley.
Erickson, H. C., Stanley.
Erust, G. P., Milwaukee.
Evans, C. A., Milwaukee.
Evans, Edward, La Crosse.
Evans, E. P., So. Milwaukee.
Evans, J. M., Evansville.
Evans, J. S., Madison.
Evans, N. C., Mt. Horeb.
Evans, Owen, Bangor.
Faber, C. A., Milwaukee.
Fairfield, W. E., Green Bay.
Falge, L., Manitowoc.
Falk, V. S., Stoughton.
Farnsworth, A. L., Barahoo.
Farnsworth, F. B, Janesville.
Farr, J. F., Eau Claire.
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Faulds, R. C., Ahrams.
Fazen, L. E., Racine.
Fechter, F. J., Elkhart Lake—R. F. D.
Federman, E. H., Montello.
Federspiel, M. M., Milwaukee.
Fellman, G. H., Milwaukee.
Felt, P. R., Waukesha.
Felter, E., Plymouth.
Fenelon, C. D., Phillips.
Festerling, E. G., Reedsville.
Fickes, H. C., Owen.
Fidler, C. A., Milwaukee.
Fiebiger, G. G., Waterloo.
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Fleek, J. L., Brodhead.
Fletcher, E. A., Milwaukee.
Fletcher, F. E., Ashland.
Fletcher, Wm., Salem.
Flower, D. R., Keenan.
Fluery, F. D., Omro.
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Foley, F. P., Dorchester.
Folsom, W. H., Fond du Lac.
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Forkin, Geo., Menasha.
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Foster, J. H. A., Cornell.
Fowle, F. F., Wauwatosa.
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Fowler, J. H., Lancaster.
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Fox, Paul A., Beloit.
Fox, Phillip, Madison.
Fox, Phil. A., Milwaukee.
Fox, P. R., Madison.
Fox, W. E., Milwaukee.
France, J. J., Milwaukee.
Frank, J. H., Neillsville.
Frank, J. H., Milwaukee.
Frank, L. F., Milwaukee.
Franklin, L., Milwaukee.
Franzel, J. E., Howards Grove.
Frawley, R. M., Wausau.
French, S. W., Milwaukee.
Freudenberg, J. A., Markesan.
Frew, J. W., Milwaukee.
Frey, F. H., Wausau.
Frey, P. G., Washburn.
Friedman, H. J., Rib Lake.
Friedrich, R. O., Milwaukee.
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Froelich, J. A., Princeton.
Froggatt, W. E. L, Cross Plains.
Frost, Carrie A., Almond.
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Fuldner, L., Milwaukee.
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Fuller, M. H., Bonduel.
Fulton, H. A, Eau Claire.
Fulton, W. A., Burlington.
Furstman, J. M., La Crosse.
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Ganser, W. J., Madison.
Gates, A. J., Tigerton.
Gates, Eugene, Two Rivers.
Gault, J. A., Lancaster.
Gaunt, P. F., Oconto.
Gauvreau, E. T., Superior.
Gavin, S. E., Fond du Lac.
Geisen, C. W., Superior
Gendron, A. E., River Falls.
Genter, A. E., Sheboygan.
Gephart, C. H., Kenosha.
Gerend, A., Cato.
Gibbs, G. L., Marshall.
Gifford, H. B., Brodhead.
Gilchrist, R. T., Milwaukee.
Gilbert, H. A., Madison.
Gill, J. F., Madison.
Gilles, A. S., Waukesha.
Gillette, H. E., Packwaukee.
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Gleason, C. M., Manitowoc.
Gnagi, W. B., Monroe.
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Goddard, J. B., Eau Claire.
Godfrey, Jos., Lancaster.
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Goerkermann, W. H., Milwaukee.
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Goggins, G. F., Wrightstown.
Goggins, J. W., Calumetville.
Goggins, R. J., Oconto Falls.
Golley, F. B., Milwaukee.
Goodfellow, J. R., Superior.
Gordon, J. B., Shawano.
Gordon, J. S., Milwaukee.
Gorst, Chas., Madison.
Gosin, D. F., Green Bay.
Gotham, L. E., Sawyer.
Gough, C. R., Shullsburg.
Gould, C. M., Superior.
Gramling, H. J., Milwaukee.
Gramling, J. J., Hales Corners.
Graner, L. H., Pound.
Grannis, I. V., Menomonie.
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Gratiot, C. C., Shullsburg.
Gratiot, W. M., Mineral Point.
Graves, L. S., Wilton.
Gray, A. W., Milwaukee.
Gray, R. H., La Crosse.
Greeley, H. P., Waukesha.
Green, M. K., Mendota.
Green, W. A, Wausau.
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Ground, W. E., Superior.
Grove, W. E., Milwaukee.
Groves, R. D., Lodi.
*Gudden, B. C., Oshkosh.
Gunderson, A., La Crosse.
Gunderson, C. A. S., Deerfield.
Gnuther, Emil, Sheboygan.
Gnnther, Otto, Sheboygan.
Gunther, T. J., Sheboygan.
Guuther, W. H., Sheboygan.
Gutsch, O. J., Sheboygan.
Guttman, Paul, Kellnersville.
Guy, J. E., Milwaukee.
Gygi, Jno., Big Falls.
Habhegger, C. J., Watertown.
Hackett, J. H., Milwaukee.
Hadley, D. A., Oconomowoc.
Hahn, A. F., Eau Claire.
Haight, A. L., Chrystal Falls, Mich.
Hall, C. H., Madison.
Hall., M. W., Mondovi.
Hall, S. S., Ripon.
Hallock, W. E., Juneau.
Halsey, H. A., Hiles.
Halsey, R. C., Lake Geneva.
Hambley, T. J., Hurley.
Hamilton, B. B., Ridgeway.
Hammond, F. W., Manitowoc.
Hankwitz, P. G., Milwaukee.
Hanley, J., Kenosha.
Hannum, H. H., Bayfield.
Hansen, J., Glenbulah.
Harbert, Helen, Kenosha.
Hardy, C. F., Milwaukee.
Hargarten, L. J., Milwaukee.
Harlow, G. A., Milwaukee.
Harper, C. A., Madison.
Harter, A. F., Marathon.
Hartford, W. P., Chicago.
Harvey, J. R., Footville.
Harvie, W. D., Neenah.
Haskell, M. W., Richland Center.
Hastings, J. F., Kenosha.
Hatch, W. E., Superior.
Haubrick, H. J., Oshkosh.
Hansberry, J. S., Wonewoc.
Hausberry, P. H., Hillsboro.
Hanshalter, H. P., Milwaukee.
Hausmann, N. E., Kewaskum.
Haven, W. S., Racine.
Hawley, F. M., Bayfield.
Hay, T. H., Stevens Point.
Hayden, A., Shullsburg.
Hayes, C. A., Chippewa Falls.
Hayes, D. J., Milwaukee.
Hayes, E. P., Eau Claire.
Hayes, E. S., Eau Claire.
Hayman, C. S., Boscobel.
Hayman, L. H., Boscobel.
Hayward, J. C., Marshfield.
Hageman, F. H., Milwaukee.
Head, L. R., Madison.
Hebron, R. A., Cataract.
Hecker, Wm., Beloit.
Heeb, H. J., Milwaukee.
Hefty, C. A., New Glarus.
Hegner, G. T., Appleton.
Heidershide, G. N., Arcadia.
Heidner, A., West Bend.
Heidner, G. A., West Bend.
Heim, R. R., Marinette.
Heinka, G. W., Madison.
Heising, A. F., Menomonie.
Helgeson, E. J., New Glarus.
Helm, A. C., Beloit.
Helm, E. C., Beloit.
Helz, J. W., Fond du Lac.
Henderson, M. L., Milwankee.
Hendrickson, H., Green Bay.
Henney, C. W., Portage.
Heraty, J. E., Bloomington.
Hering, E R., Shell Lake.
Herner, W. L., Milwaukee.
Herron, A. L., Milwaukee.
Hertzman, C. O., Ashland.
Hervey, J. A., Milwaukee.
Hess, C. F., Madison.
Hess, J. W., Adell.
Hewitt, M. R., Milwaukee.
Hickey, R. E., Rhinelander.
Hicks, L. W., Burlington.
Higgins, E. G., Melrose.
Higgins, S. G., Milwaukee.
Hilger, W F., Milwaukee.
Hill, W. B., Milwaukee.
Hilton, G. F., Sturgeon Bay.
Hinckley, H. G., Merrill.
Hinn, L. P., Fond du Lac.
Hinrichson, J. A., Larsen.
Hipke, G. A., Milwaukee.
Hipke, Wm., Marshfield.
Hitz, H. B., Milwaukee.
Hodges, F. L., Monroe.
Hodgson, A. J., Waukesha.
Hoermann, R. B., Milwaukee.
Hoffman, E. E., Lone Rock.
Hoffman, J. G., Hartford.
Hoffman, P. A., Campbellsport.
Hoffmier, L. A., Superior.
Hogan, J. H., Racine.
Hogan, J. M., Oshkosh.
Hogue, G. I., Milwaukee.
Holbrook, A. T., Milwaukee.
Hollenbeck, N. W., Milwaukee.
Holliday, M. E., Oshkosh.
Holm, J. H., Kenosha.
Holtz, H. M., Beaver Dam.
Holz, A. P., Seymour.
Hopkins, W. B., Cumberland.
Hopkinson, Dan'l, Milwaukee.
Horsewell, U. M., Wausankee.
Hosmer, M. S., Ashland.
Houck, Mary P., La Crosse.
Hongen, Edw., Grand Rapids.
Hough, A. G., Morrisonville.
Housley, H. W., Chili.
Hovde, A. G., Superior.
Howard, J. J., Columbus.
Howell, E. C., Fenuimore.
Howison, N. L., Menomonie.
Hoyer, A. A., Randolph.
Hoyer, G. C., Milwaukee.
Hoyt, G. E., Menomonee Falls.
Hubenthal, J. C., Belmont.
Hnennekens, J. H., Milwankee.
Huff, F. C., Sturgeon Bay.
Hughes, C. W., Winnecoune.
Hughes, J. R., Dodgeville.
Hugo, D. G., Oshkosh.
Hull, E. S., Milton Junction.
Hummel, W. J., Abelmans.
Hunt, E. H., Oshkosh.
Hunt, F. O., Fall River.
Hunt, Ida H., Tigerton.
Hnrth, O. J., Cedarburg.
Hutchins, S. E., Whitehall.
Hyde, W. G., Racine.
Hyslop, F. R., Delavan.
Ickstadt, A., Mt. Horeb.
Irvine, W., Manawa.
Irwin, H. J., Baraboo.
Ishmael, O. E., Mt. Horeb.
Iverson, M., Stoughton.
Ivy, R. H., Milwaukee.
Jackson, F. A., Eldorado.
Jackson, J. A., Rudolph.
Jackson, J. A., Sr., Madison.
Jackson, J. A., Jr., Madison.
Jackson, R. H., Madison.
*Jacob, B. U., Wankesha.
Jacobs, E. C., Durand.
James, A. W., Muscoda.
Jamieson, Geo., Lone Rock.
Jefferson, H. A., Clintonville.
Jeffery, L. A., Weyauwega.
Jegi, H. A., Galesville.
Jensen, A. B., Menasha.
Jermaiu, H. F., Milwaukee.
Jermain, L. F., Milwaukee.
Jewell, T. M., La Crosse.
Jobse, P. H., Milwaukee.
Jobse, W. P., Milwaukee.
Jockey, F. D., Thorp.
Johnson, A. W., Milwaukee.
Johnson, Fred, Eau Claire.
Johnson, F. G., Iron River.
Johnson, F. P., Ontario.
Johnson, H. B., Tomah.
Johnson, H. C., Glen Flora.
Johnson, J. C., Ogdensburg.
Johnson, Laura M., Boston, Mass.
Johnson, Margaret L., Madison.
Johnstou, G. B., Abbottsford.
Johnston, H. E, Oshkosh.
Johnston, W. M., Dale.
Johnston, W. W., Racine.
Jones, A. N., Reedsburg.
Jones, A. W., Randolph.
Jones, D. T., Wausau.
Jones, E. H., Weyauwega.
Jones, R. W., Wausau.
Jones, Susan, Racine.
Jones, W. C., Kilbourn.
Jorgenson, P. P. M., Kenosha.
Joseph, W. A., Hancock.
Judge, T. A., Milwaukee.
Juergeus, L. W., Milwaukee.
Juuck, J. A., Sheboygau.
Kagy, M. O., Milwaukee.
Kahn, Jos., Milwaukee.
Karnopp, G. L., Mischicott.
Karsten, A. C., Horicon.
Kastner, A. L., Milwaukee.
Katz, H. M., Cedarburg.
Kaumheimer, G. J., Milwaukee.
Kay, H. M., Madison.
Kaysen, R., Watertown.
Keech, J. S., Racine.
Keenan, H., Stoughton.
Keithley, J. A., Palmyra.
Keithley, J. W., Beloit.
Keland, G. A., Madison.
Kelaud, H. B., North Cape.
Keller, J. M., St. Louis, Mo.
Kellner, V. V., Maribel.
Kellog, E. W., Milwaukee.
Kelly, D. M., Baraboo.
Kelly, F. H., Merrill.
Kelly, Jno., Cato.
Kelly, W. W., Green Bay.
Kemper, W. G., Manitowoc.
Kennedy, F. H., Greenwood.
Keunedy, W. R., Milwaukee.
Kenuey, G. F., Milwaukee.
Kermott, E. P., Hudsou.
Kersten, A. M., De Pere.
Kersten, N. M., De Pere.
Kettelhut, E. J., Milwaukee.
Keyes, S. M., Oweu.
Kiefer, J. G., Milwaukee.
King, C. F., Hudson.
King, H. V., Pepin.
Kings, J. S., Watertown.
Kinue, Edw., Elkhorn.
Kissinger, C. A., Melrose.
Kessling, A. C., Milwaukee.
Kissling, C. L., Milwaukee.
Kitzke, F. W., Milwaukee.
Klein, J. F., Wanwatosa.
Kleinboehl, J. W., Random Lake.
Kleinhaus, F. A., Milwaukee.
Kleinhans, M. A., Milwaukee.
Kleinschmidt, H. W., Oshkosh.
Klemm, L. F., Milwaukee.
Kliese, L. A., Milwaukee.
Knapp, E. J., Rice Lake.
Knauf, A. J., Sheboygan.
Knauf, F. P., Kiel.
Knauf, G. E., Sheboygan.
Knanf, N. J., Chilton.
Knox, C. S., Superior.
Knox, E. S., Bowler.
Knutson, O., Osseo.
Koehler, A. G., Oshkosh.
Koehler, J. P., Milwaukee.
Korthals, F. J., Milwaukee.
Kradwell, W. T., Wauwatosa.
Krahn, A. J., Beaver Dam.
Krahn, G. W., Oconto Falls.
Kratsch, A. W., Milwaukee.
Krant, E., Beetown.
Krebs, W. D., Cecil.
Kreitzer, A. J., Sawyer.
Kremers, A., Milwankee.
Kreutzer, A. G., Milwaukee.
Kriz, G. H., Milwaukee.
Krohn, H. C., New Holstein.
Kron, L. O., Menomonie.
Krueger, B., Cudahy.
Krumme, S. A., Fond du Lac.
Krygiar, A. A., Milwaukee.
Kulig, A. H., Dodge.
Kunny, B., Cylon.
Kyllo, J. C., Superior.
La Breck, F. A., Eau Claire.
Lacey, S. W., Footville.
Lademann, O. E., Milwaukee.
Ladwig, W. A., Wausau.
Laird, J. J., Black Creek.
Lalor, J. C., Sauk City.
Lambeck, F. J., Milwaukee.
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Longenfeld, P. F., Theresa.
Langland, P., Milwaukee.
Lansdowne, F. B., Kenosha.
Larsen, G. A., Hayward.
Larson, L. A., Colfax.
Latham, C. O., Green Bay.
Lauder, C., Viroqua.
Laughlin, D. M., Milwaukee.
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Lawler, C. F., Hilbert.
Lawler, G. W., Sussex.
Lawler, T. S., Lyndon Station.
Lawrence, G. H., Fond du Lac.

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Leicht, P., Lake Mills.
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Lelaud, A. M., Whitewater.
Lemmel, J. T., Albany.
Lemmer, G. M., Spoouer.
Lemon, C. H., Milwaukee.
Lenfesty, J. P., De Pere.
Leonnard, C. W., Fond du Lac.
Lester, W. A., Onalaska.
Lettenberger, J., Milwaukee.
Leviugs, A. H., Milwaukee.
Levitas, I. E., Greeu Bay.
Lewis, C. H., Milwaukee.
Lewis, J. M., Bloomingtou.
Lid, T. A., Marinette.
Lillie, O. R., Milwaukee.
Liucoln, W. S., Dodgeville.
Liudores, J. D., Steveus Point.
Lindsay, W. T., South Madisou.
Linn, W. N., Oshkosh.
Lintleman, F. R., Janesville.
Little, W. D., Maiden Rock.
Lobedan, E. T., Milwaukee.
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Lumsden, Wm., Clayton.
Lundgren, C. A., Minneapolis, Minn.
Lundmark, L. M., Ladysmith.
Lyman, J. V. R., Eau Claire.
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Lyon, W. M., Eden.
Lyons, J. A., Welcome.
McArthur, D. S., La Crosse.
McBeath, H. F., Milwaukee.
McBeath, N. E., Livingston.
McCabe, H., Milwaukee.
McCabe, P. G., Fond du Lac—R. F. D.
McCallen, A. E., Waupaca.
McCallister, G. H., Avoca.
McCarthy, G. W., Athens.
McCarthy, H. C., Richland Center.
McClure, G. H., Westboro.
McComb, I. N., Brillion.
McCorkle, S. C., Milwaukee.
McCormick, H., New Auburn.
McCracken, R. W., Union Grove.
McCutcheon, W. R., Thorp.
McDermott, L. C., Blanchardville.
McDill, J. R., Milwaukee.
McDonald, H. F., Hollendale.
McDougall, G. T., Fond du Lac.
McDowell, A. J., Soldiers Grove.
McEachern, W. A., Superior.
McGauley, F. M., Fond du Lac.
McGill, P. J., Superior.
McGonigal, M., Loyal.
McGorty, M. A., La Crosse.
McGovern, Jno., Potosi.
McGovern, J. J., Milwaukee.
McGovern, P. H., Milwaukee.
McGrath, Edw., Baraboo.
McGrath, E. F., Appleton.
McGuire, W. H., Janesville.
McHugh, F. T., Chippewa Falls.
McIndoe, T. B., Rhinelander.
McKee, F. W., Richland Center.
McKellar, A., Blanchardville.
McKeon, P., New Richmond.
McKivett, W., Milwaukee.
McKnight, G. B., Fond du Lac.
McLaughlin, H. J., Glen Haven.
McMahon, J. P., Milwaukee.
McNaughton, W. T., Milwaukee.
McRae, J. D., Chippewa Falls.
McRae, M., Milwaukee.
McShane, J. J., Kenosha.
MacCollum, C. L. R., Forest Junction.
MacCormack, E. A., Trempealeau.
MacDonald, Edw., Cuba City.
MacDonald, W. H., Lake Geneva.
MacKechnie, R. S., Hillsboro.
MacLachlan, W. G., McFarland.
MacMillan, A. E., Stevens Point.
MacNicholas, L. T., Athens.
Mack, J. A., Madisou.
Madison, J. D., Milwaukee.
Maechtle, E. W., West Allis.
Maes, C. G., Kimberly.
Malloy, T. E., Random Lake.
Malone, F. W., Waterford.
Malone, J. F., West Allis.
Malone, T. C., Milwaukee.
Malone, W. F., Milwaukee.
Marchessault, J. A., Ashland.
Markson, S. M., Milwaukee.
*Marquardt, C. H., La Crosse.
Marquis, A. J., Wausaukee.
*Marsden, A. L., Rio.
Marsden, T. H., Feunimore.
Marsh, J. M., Elkhorn.
Marshall, F. P., North Fond du Lac.
Marshall, V. F., Appleton.
Martens, W. A., Prairie du Sac.
Martin, Geo., Baldwin.
Martin, M. T., Merrimac.
Mason, C. H., Superior.
Mason, E. L., Eau Claire.
Mason, G. F., Milwaukee.
Mason, V. A., Marshfield.
Mathiesen, J., Eau Claire.
Mathison, A., Neillsville.
Matthews, J. B., Milwaukee.
Mauermann, J. F., Monroe.
Maurer, A. A., La Crosse.
Maxam, M., Schleisingerville.
Maxson, F. S., Milwaukee.
May, J. V., Marinette.
Meacham, J. G., Sr., Racine.
Meacham, J. G., Jr., Racine.
Meacher, B. E., Portage.
Meade, F. S., Madison.
Meanwell, W. E., Madison.
Meany, J. E., Manitowoc.
Mears, G. V., Foud du Lac.
Mecum, J. B., Bagley.
Meiklejohn, D. V., Fond du Lac.
Melaas, W. G., Beloit.
Merrill, W. G., Grand Rapids.
Mertens, H. G., Bayfield.
Mesch, A. A., Saukville.
Messmer, C., Milwaukee.
Meusel, H., Oshkosh.
Meyer, R. C., Elkhart Lake.
Meyers, J. M., Superior.
Meyst, Chas., Burlington.
Middleton, W. S., Madison.
Midclfart, C., Eau Claire.
Midgley, A. E., Whitewater.
Mieding, A. E., Milwaukee.
Milbee, H. H., Marshfield.
Miller, E. A., Clintonville.
Miller, E. W., Milwaukee.
Miller, H. C., Whitewater.
Miller, T., Oconomowoc.
Miller, W. J., La Valle.
Miller, W. P., Milwaukee.
Miller, W. S., Madison.
Mills, J., Janesville.
Mills, N. P., Appleton.
Minahan, J. R., Green Bay.
Minahan, P. R., Fond du Lac.
Mainahn, R. E., Green Bay.
Minshall, A. P., Viroqua.
Mishoff, I. D., Milwaukee.
Mitchell, E. J., Brodhead.
Mitchell, R. E., Eau Claire.
Mitchell, R. K., Milwaukee.
Mitchell, S. R., Milwaukee.
Mitten, A. A., Milwaukee.
Mix, H. C., Green Bay.
Mock, F. C., Milwaukee.
Moeller, J., Milwaukee.
Moffatt, H. L., Arpin.
Mollinger, S. M., Milwaukee.
Monk, R. W., Neillsville.
Monroe, W. B., Monroe.
Monstad, J. W., New London.
Montgomery, A., Eau Claire.
Montgomery, Wm., Eau Claire.
Moore, Clara, Madison.
Moore, E. E., Merrillan.
Moore, G. W., Antigo.
Moore, L. A., Monroe.
Moore, W. N., Appleton.
Moquin, E. I., Fairwater.
Moraux, F., Luxemburgh.
Morgan, J. J., Duraud.
Morgenroth, H. W., Oshkosh.
Mork, Ole, Blair.
Morley, F. E., Viroqua.
Morris, E. K., Merrill.
Morris, R. C., Ft. Atkinson.
Morris, Sarah I., Madison.
Morrison, M., Cashton.
Morrison, W. W., Edgerton.
Morse, E. A., Appleton.
Mortensen, O. N., Grand Rapids.
Morter, C. W., Milwaukee.
Morter, R. E., Milwaukee.
Morton, H. H., Cobb.
Moulding, F. C., Watertown.
Mount, H. A., West Allis.
Moyer, S. R., Monroe.
Mudroch, J. A., Columbus.
Mueller, W. E., Green Bay.
Muenzuer, R. J., Milwaukee.
Munger, D. C., Ellsworth.
Munkwitz, F. H., Milwaukee.
Mulford, E. R., La Crosse.
Mulvaney, F. M., Marion.
Munn, W. A., Janesville.
Murphy, E. C., Wilmot.
Murphy, G. F., Junction City.
Murphy, S. W., Kenosha.
Murphy, W. J., Milwaukee.
Murphy, W. T., Waukesha.
Muth, Carl, Sheboygan.
Myers, A. W., Milwaukee.
Myers, C. E., Milladore.
Myers, I. A., Cottage Grove.
Myrick, A. L., Eastman.
Nadeau, A. T., Marinette.
Nadeau, E. G., Green Bay.
Maiuka, A., Boaz.
Nair, Belle P., Winnebago.
Nason, W. C., Omro.
Nauth, D. F., Kiel.
Nedry, G. C., Menomonie.
Nedry, H. M., Medford.
Nelson, A. L., Racine.
Nelson, A. N., Clear Lake.
Nelson, N. A., Madison.
Nelson, O. A., Park Falls.
Nelson, O. O., Arcadia.
Nelson, W. V., Milwaukee.
Newell, F., Burlington.
Newman, J., Madison.
Newton, J. E., Windsor.
Nichols, F. C., Wausau.
Nichols, R. M., Sheboygan Falls.
Nichols, W. T., Milwaukee.
Nicholson, J. D., Milltown.
Nielson, G. W., Milwaukee.
Nielson, W. H., Milwaukee.
Nimocks, Sara, La Crosse.
Nims, C. A., Oshkosh.
Nixon, A. J. W., Delafield.
Nixon, H. G. B., Hartland.
Nixon, R. T. A., Brookfield.
Noble, J. B., Waukesha.
Nobles, B. O., Milwaukee.
Noer, Julius, Stoughton.
Noer, P. J., Wabeno.
Nolan, W. N., Kaukauna.
Noltc, L. G., Milwaukec.
North, C. F., Beaver Dam.
Notbohm, W. R., Dousman.
Nott, G. W., Racine.
Nowack, L. H., Watertown.
Noyes, G. B., Storm Lake.
Nussle, A. C., Chippewa Falls.
Nuzum, T. W., Janesville.
Nuzum, W. F., Baraboo.
Nye, F. T., Beloit.
Nystrum, C. E., Medford.
O'Brien, H. J., Superior.
O'Brien, H. N., Darien.
O'Brien, J. M., Oregon.
O'Brien, T., St. Nazianz.
O'Brien, W. T., Ashland.
O'Connell, D. C., Milwaukee.
O'Connell, J. E., Milwaukee.
O'Connor, W. F., Ladysmith.
O'Leary, T. J., Superior.
O'Leary, T. J., East Troy.
O'Dell, L. E., Wilson.
Oakland, H. G., Milwaukee.
Oatway, W. H., Waukesha.
Obertin, C. A., Union Grove.
Ogden, H. V., Milwaukee.
Oettiker, J., Platteville.
Oliver, T. J., Green Bay.
Olmstead, A. O., Green Bay.
Olsen, M. I., Madison.
Olson, A. K., Ettrick.

*Deceased.

Olson, A. L., Stoughton.
Olson, E. A., Osseo.
Omsted, N., Stoughton.
Orchard, H. J., Superior.
Orr, E. D., Mt. Hope.
Orr, J. S., Ft. Atkinson.
Orton, Susanne, Darlington.
Ouellette, C. J., Oconto.
Overbaugh, J. H., Hartland.
Ovitz, E. G., Linden.
Oyen, M., Ellsworth.
Ozanne, I. E., Neenah.
Ozanne, J. T., Oshkosh.
Pake, S. G., Superior.
Palm, C. A., Kenosha.
Palmer, C. W., Cassville.
Palmer, J. A., Arcadia.
Palmer, W. H., Janesville.
Panetti, E. J., Milwaukee.
Panetti, P. A., Hustisford.
Parham, G. H., Necedah.
Park, W. H., Glenwood City.
Parke, G., Sylvan.
Parke, W. B., Camp Douglas.
Parker, A. S., Clinton.
Parker, T. G., Rome.
Parmenter, E. L., Mondovi.
Parmley, J. P., Mineral Point.
Partridge, O. F., Mattoon.
Patek, A. J., Milwaukee.
Payne, A. L., Eau Claire.
Peairs, R. P., Milwaukee.
Pearce, W. J., Dodgeville.
Pearson, L. M., Tomahawk.
Pease, W. A., Sr., Otsego.
Pease, W. A., Jr., Rio.
Peck, W. W., Darlington.
Peebles, Mary, Shullsburg.
Peehn, F. G., Corliss.
Pegram, J. W., Milwaukee.
Pelton, L. H., Waupaca.
Pember, J. F., Janesville.
Pembleton, W. E., Wittenberg.
Perrin, G. H., Menomonee Falls.
Perrin, H. E., Star Prairie.
Perry, G., Amery.
Peters, H. A., Oconomowoc.
Peterson, C. F., Independence.
Peterson, E. F., Wauwatosa.
Peterson, G. E., Waukesha.
Petzke, E. A., Hixton.
Pfeifer, C. W., Sheboygan Falls.
Pfeifer, F. J., New London.
Pfeifer, H., Jackson.
Pfeil, R. C., Thiensville.
Pfister, Franz, Milwaukee.
Phaneuf, S. J., Somerset.
Philips, T. C., Milwaukee.
Phillips, L. J., Weyerhaueser.
Pickering, C. R., Muscoda.
Pickett, S. L., Bayfield.
Pierce, E. D., Trempealeau.
Pierson, P. R., Readstown.
Pinkerton, W. T., Prairie du Chien.
Pitz, M. N., Juneau.
Pleyte, A. A., Wales.
Plumlee, R. S., Brooklyn.
Pomainville, Frank, Grand Rapids.
Pomainville, Geo., Nekoosa.
Pope, F. J., Racine.
Pope, F. W., Racine.
Poppy, A., Friendship.
Poppy, H. B. B., Wantoma.
Poser, E. M., Columbus.
Post, C. C., Barron.
Potter, J. Y., New London.
Potter, L. A., Superior.
Potter, R. P., Marshfield.
Powell, J. J., Galesville.
Powers, F. H., Bucyrus, Ohio.
Powers, H. W., Milwaukee.
Powers, J. W., Burlington.
Pratt, Maud, Appleton.
Press, G. W., Cambria.
Pretts, W. W., Platteville.
Prince, L. H., Madison.
Pritchard, J. F., Manitowoc.
Proctor, T. C., Sturgeon Bay.
Prouty, W. A., Burlington.
Provost, A. J., Oshkosh.
Pugh, G. A., Kenosha.
Pugh, Wm., Kenosha.
Pullen, A. J., No. Fond du Lac.
Pulls, A. J, Milwaukee.
Purcell, H. E., Madison.
Purdy, A. H., Milwaukee.
Purtell, E. J., Milwaukee.
Purtell, J. A., Milwaukee.
Quade, E. B., Wausau.
Quam, J., Deerfield.
Quick, E. W., Milwaukee.
Raasock, H., Nelsonville.
Racek, G. J., Princeton.
Radloff, A. C., Plymouth.
Ragan, W. F., Neopit.
Ragan, W. J., Shawano.
Randall, A. J., Kenosha.
Randall, M. W., Blue River.
Rassmussen, H., Milwaukee.
Rath, R. R., Granton.
Rathburn, J. W., Prairie du Chien.
Rathbert, E. T., Chilton.
Ravn, M., Merrill.
Raymoud, R. G., Brownsville.
Read, Flora, Fond du Lac.
Reagles, R., Arlington.
Reay, G. R., La Crosse.
Rector, A. E., Appleton.
Redelings, T. J., Marinette.
*Reed, W. W., Jefferson.
Reeve, J. S., Appleton.
Reeves, S. T., Albany.
Regan, E. D., Milwaukee.
Rehorst, J. J., Foud du Lac.
Reich, H. C., Sheboygan.
Reich, W. F., Milwaukee.
Reineck, C., Appleton.
Reineking, H., Milwaukee.
Reinert, E. N., Cleveland.
Reinhardt, J. P., Fountain City.
Reinhart, D. B., Merrill.
Reynolds, J. C., Lake Geneva.
Rheineck, A. F., Milwaukee.
Rhode, H. P., Green Bay.
Rice, D. B., Fayette.
Rice, D. S., Stevens Point.
Rice, F. A., Delavan.
Rice, R. H., Milwaukee.
Rice, R. H., Delavan.
Richards, C. A., Rhinelander.
Riddle, Adelaide, Oshkosh.
Riddle, Julia, Oshkosh.
Rideout, M. E., Hortonville.
Ridgman, A. L., Grand Rapids.
Ridgway, E. T., Elkhorn.
Ridley, S. R., Mineral Point.
Riehl, F. W., Milwaukee.
Ries, T. O., Luck.
Riley, E. A., Park Falls.
Riley, P. E., Elk Mound.
Riugo, H. F., Montreal.
Rinker, F. C., Madison.
Riordan, J. F., Berlin.
Ripley, G. H., Kenosha.
Risher, F. O., Shell Lake.
Ritchie, G. A., Appleton.
Robb, E. H., Sturgeon Bay.
Robb, J. J., Green Bay.
Roberts, J. A., Portage.
Roby, H. S., Milwaukee.
Rock, J. N., Milwaukee.
Rodermund, A. M., Athens.
Roehr, J. H., North Milwaukee.
Roethke, R. W., Milwaukee.
Rogers, A. W., Milwaukee.
Rogers, E. H., Stevens Point.
Rogers, F. A., Oconomowoc.
Rogers, P. F., Milwaukee.
Rolfs, T. H., Milwaukee.
Rollefson, C. J., Superior.
Rood, J. F., Darien.
Roos, A., Oshkosh.
Rose, F., Coleman.
Rose, J. F., Lena.
Rosenberry, A. B., Wausau.
Roseheimer, M. A., Fox Lake.
Rosenthal, G., Milwaukee.
Rosholt, J. A., La Crosse.
Ross, G. L., Milwaukee.
Ross, H. R. T., Ladysmith.
Ross, P. M., Granton.
Rothman, L., Wittenberg.
Rouse, H. A., Browntown.
Royles, J. A., La Crosse.
Rowley, A. G., Middleton.
Rowley, C. C., Winnebago.
Roy, E., Wausau.
Ruckle, W. M, Grand Rapids.
Ruethen, K. A., Ridgeland.
Rugh, R. E., Racine.
Ruhland, G. C., Milwaukee.
Ruschaupt, L. F., Milwaukee.
Russell, F., Neenah.
Russell, F. G, Milwaukee.
Russell, H. C., Milwaukee.
Russell, T. P., Oshkosh.
Ryan, C. E., Appleton.
Rydell, C. B., Superior.
Salter, H. G., Cascade.
Sandborn, M. J., Appleton.
Sapper, C. L., Gresham.
Sarazin, F. C., Superior.
Sarles, W. T., Sparta.
Sattler, J. M., Antigo.
Sattre, O. M., Rice Lake.
Sauerhering, D. L, Wausau.
Saunders, G., Superior.
Sauthoff, A., Mendota.
Sauthoff, Mary, Mendota.
Savage, G. F., Port Washiugtou.
Savage, G. T., Milwaukee.
Sayle, R. G., Milwaukee.
Sayles, L. W., Baraboo.
Saylor, H., Merrill.
Scantleton, J. M., Sparta.
Schallern, B., Ripou.
Schallern, O., Ripon.
Schaper, H., Appleton.
Schee, J., Westby.
Scheer, G. H., Sheboygan.
Scheib, G. F., Urbana, Ill.
Scheid, M. M., Roseudale.
Schein, J. E., Oshkosh.
Schell, Ida L., Milwaukee.
Schemmer, A. L., Colby.
Scheurich, L. G, Tomah.
Schiller, L., Milwaukee.
Schlegel, H. T., Wausau.
Schmeling, A. F., Columbus.
Schmidt, E. S., Green Bay.
Schmidt, F. M., Eagle.
Schmidt, J. A., Brillion.
Schmit, A. I., Beloit.
Schmitt, F., Milwaukee.
Schmitt, G., Milwaukee.
Schmitt, L., Milwaukee.
Schmitt, Phil., Milwaukee.
Schmitz, W. C., Kiel—R. F. D.
Schneider, J., Milwaukee.
Schneider, F., New London.
Schneider, Jno., Oshkosh.
Schnell, W. H., Superior.
Schnug, Max, Bonduel.
Schoen, Chas., Milwaukee.
Schoen, R. E., Beaver Dam.
Scholz, G. M., Milwaukee.
Schoofs, J. J., Malone.
Schreiner, J. K., Westby.
Schriber, E. L., Husher.
Schroeckenstein, R. S., Marion.
Schroeder, H. F., Marinette.
Schroeder, J. C., Milwaukee.
Schuldt, C. M., Platteville.
Schulz, F. M., Wauwatosa.
Schuster, B. L., Milwaukee.
Schwalbach, C. G., Juneau.
Schwarz, S. G., Humbird.
Schweitzer, G. J., St. Cloud.
Scollard, J. T., Milwaukee.
Scott, B. E., Berlin.
Scott, J. J., Eau Galle.
Scott, J. R., Appleton.
Seaman, G. E., Milwaukee.
Searle, D. R., Superior.
Sears, H. B., Beaver Dam.
Seelman, J. J., Milwaukee.
Seemann, W. C., Eau Claire.
Seldon, W. B., Thorp.
Senn, C. U., Ripon.
Senn, F. C., Oshkosh.
Senn, Geo., De Pere.
Sexton, W. G., Marshfield.
Shafferzick, C., Denver, Col.
Shaw, A. O., Ashland.
Shaw, B. W., Waunakee.
Shaw, J. L., Manitowoc.
Shaykett, F. E., Brandon.
Shearer, R. D., Milwaukee.
Sheehy, T. J., Tomah.
Sheldon, C. S., Madison.
Sheldon, W. H., Madison.
Shepherd, W. A., Seymour.
Sherman, A., Winnebago.
Sherwood, M. W., Milwaukee.
Shimek, A. J., Manitowoc.
Shimonek, F., Milwaukee.
Shinnick, T. F., Beloit.
Shippy, V. J., Stevens Point.
Shockley, H. O., Darlington.
Sholdski, J., Milwaukee.
Siegmund, F. N., Ripon.
Sieker, A. W., Franklin.
Sifton, H. A., Milwaukee.
Silverthorn, F. R., Berlin.
Simon, L. J., Horicon.
Simons, N. S., Taylor.
Sincock, H. G., Odanah.
Sizer, E. M. A., Fall Creek.
Skwor, C. J., Neosha.
Slaughter, A. W., Ephriam.

*Deceased.

Sleyster, Rock, Waupun.
Slyfield, F. F., Duluth, Minn.
Smedal, G., La Crosse.
Smiedlug, Geo., Mineral Point.
Smiles, C. J., Ashland.
Smith, A. D., Gilmanton.
Smith, C. C., Scandinavia.
Smith, C. E., Beloit.
Smith, C. M., Evansville.
Smith, E. A., Milwaukee.
Smith, Geo., Hortonville.
Smith, G. L., Jefferson.
Smith, G. M., Chippewa Falls.
Smith, J. C., Beloit.
Smith, Jos. F., Wausau.
Smith, K. W., Madison.
Smith, O. E., Mukwonago.
Smith, P. H., Racine.
Smith, R. C., Superior.
Smith, S. M., South Milwaukee.
Smith, S. M. B., Wausau.
Smith, T. D., Neenah.
Smith, W. P., Waupun.
Soles, F. A., Spencer.
Sommers, J. C., Madison.
Sonnenberg, C. W., Sheboygan.
Sorenson, M., Viroqua.
Sorenson, S., Racine.
Southwick, F. A., Stevens Point.
Spawn, M. G., Beloit.
Spencer, G. F., Evansville.
Spencer, L. E., Wausau.
Sperry, S. B., Milwaukee.
Sperry, W. P., Phillips.
Spiegelberg, E. H., Boscobel.
Spitz, M. M., Milwaukee.
Sputh, C. B., La Crosse.
Stack, G. F., Independence.
Stack, S. S., Milwaukee.
Staehle, Max, Manitowoc.
Stalker, J. M., Kenosha.
Stanley, W. S., Milwaukee.
Stannard, G. H., Sheboygan.
Starnes, Brand, Mauston.
Starr, F. W., Stanley.
Stehbins, W. W., Verona.
Steele, G. A., Red Granite.
Steele, G. M., Oshkosh.
Steffen, L. A., Antigo.
Steffen, I. D., Antigo.
Steger, E. M., Oshkosh.
Stephenson, W. L., Ladysmith.
Stevens, F. E., Bristol.
Steves, B. J., Menomonie.
Stewart, F. W., Reeseville.
Stiles, F. P., Sparta.
Stiles, V. W., Sparta.
Stirn, F. J., Schleisingerville.
Stockman, B. G., Woodville.
Stoddard, C. H., Milwaukee.
Stoelting, C. W., Oconto.
Stoland, T., Eau Claire.
Stormont, C. J., Viola.
Stovall, W. D., Madison.
Stoye, J. P., Theresa.
Stratton, F. A., Milwaukee.
Strauss, F., Milwaukee.
Strong, W. B., Hales Corners.
Stubenvoll, C. E., Shawano.
Studley, F. C., Milwaukee.
Stuesser, C. M., Oconomowoc.
Sweemer, Wm., Milwaukee.
Suiter, F. C., La Crosse.
Sullivan, A. G., Madison.
Sullivan, J. T., Milwaukee.
Sullivan, Jos., Kenosha.
Sundine, O. V., Milltown.
Sure, J. H., Milwaukee.
Sutherland, C. H., Janesville.
Sutherland, F. E., Janesville.
Suttle, H. J., Viroqua.
Swartout, E. C., La Crosse.
Sweetman, R. H., Green Bay.
Sykes, H. D., Milwaukee.
Sykes, L. G., Milwaukee.
Sylvester, H., Montfort.
Tanner, E. E., Milwaukee.
Tanner, G. F., Turtle Lake.
Tanner, H. B., Amarilla, Texas.
Tarnutzer, B. C., Beaver Dam.
Tarter, J. W., Iron River.
Tasche, C. T., Sheboygan.
Tasche, J. C., Sheboygan.
Taugher, A. J., Milwaukee.
Taugher, J. P., Milwaukee.
Taylor, D. A., Bangor.
Taylor, E. A., Racine.
Taylor, F. B., Madison.
Taylor, J. G., Milwaukee.
Taylor, J. R., Madison.
Tatlor, L. L., Waupun.
*Taylor, M. W., Kilbourn.
Taylor, R. W., Pewaukee.
Terliudeu, J. H., Jackson.
Teschan, R. C., Milwaukee.
Teschan, R. F., Milwaukee.
Tharinger, E. L., Milwaukee.
Thayer, F. A., Beloit.
Thewalt, W. B., Poysippi.
Thielke, G. A., Wausau.
Thienhaus, C. O., Milwaukee.
Thill, D. P., Milwaukee.
Thomas, J. S., Milwaukee.
Thompson, A. S., Mt. Horeb.
Thompson, F. A., Milwaukee.
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Thompson, I. F., Eau Claire.
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EDITORIALS

THE SEASON'S GREETINGS.

THE JOURNAL wishes to every one of its readers a very Merry Christmas and a Prosperous New Year. Don't let us make any resolutions which we may be reasonably sure we shall not keep, but let us endeavor to make the year 1917 a banner year by laying aside all bickerings, pulling together, and boosting for a better organization. We will kill two birds with one stone, we elevate the practice of Medicine and Surgery and we raise our own personal standard of efficiency.

AMERICAN SOCIETY FOR THE CONTROL OF CANCER.

THIS society now is carrying on active propaganda with two chief objectives, (1) a campaign of public and professional instruction, and (2) the collection of statistical data. In May the society made a report to the Congress of Physicians and Surgeons. The report covers a review of the activities and demonstrates how earnestly this question is being attacked. It is interesting to find that out of a total of 577 members, approximately half are physicians. Sixteen states have organized active committees and others are in process of formation. An effort has been made to enlist the co-operation of the State and Municipal Health authorities wherever possible. Considerable success has attended these efforts so that now many Health Boards are taking an active part in the campaign. Medical Societies, Nurses, Social Workers, Women's Clubs, Insurance Companies, Industrial and Welfare Organizations are also being organized and are furnished with data from the central bureau in New York.

The society aims to get its propaganda before the public by Newspaper Publicity, by circulars and Bulletins, by Public Meetings and Lectures. The society is planning a statistical study of cancer unlike any preceding study and hopes to collect and distribute data of great value. The report shows great progress and an increasing interest in the subject of cancer.

We still feel that in Wisconsin we should have a committee which would co-operate with the Central Committee. We do not want to be altogether out of the running.

COUNTY SOCIETY PROGRAMS.

WE have received from our Secretary, Dr. Sleyster, a letter which was sent to all County Secretaries, and a copy of the outline of subjects and speakers for the Extension work among the County Societies. This is a matter that has long been in the mind of our State Secretary and which really led to the very excellent program before the session of the Association of County Secretaries and State Officers.

The present plan is to limit the speakers to the full time instructors in the two medical schools of the State, the University of Wisconsin and

Marquette University. Between these two universities there is the best of feeling, a friendly rivalry which is stimulating and productive of good work.

We wish to lend our small voice in support of this Extension work. We feel that the opportunity which lies at the feet of the physicians of the State should be invited to stand up and come in where it is warm and cozy. We hope to be able to record during the year that every County Society availed itself of this privilege and was clamoring for more instruction.

There is so much that is new and of intense interest in Medicine today and so little opportunity for the fellow who works night and day to get at the new things, that such courses should be welcomed by the hard-worked doctors as the spring of water is welcomed by the thirsty traveler.

It is common fallacy that the country physician only wants to know how to cure piles and pin worms. There has been much catering to this idea and several so-called medical Journals make their appeal on the practical (?) matter in their columns. We do not believe this. We believe that the best element in the medical profession desires with a great desire a broad knowledge and an intimate acquaintance with fundamental precepts. They want to know the recent advances, but not having been trained in the modern vocabulary, they naturally want the results of the newer researches told to them in language which they can comprehend. This is just what it is hoped this Extension work will accomplish. We anxiously await the verdict of the audiences.

NEWS ITEMS AND PERSONALS

Dr. M. O. Bentley, Sturgeon Bay, is seriously ill with pneumonia.

Dr. W. G. Merrill, Grand Rapids, who has been at Camp Wilson, San Antonio, during the past few months, has returned home.

Dr. Julius Bruess, Milwaukee, who recently fractured his arm, while cranking his automobile, has resumed his practice.

Dr. A. J. Rosholt, La Crosse, was recently elected physician for La Crosse County. He succeeds Dr. R. E. Flynn, medical attendant to the county for four terms. Dr. Flynn was not a candidate for re-election.

Dr. G. I. Hogue, Milwaukee, for the past several months with Field Hospital, Company No. 1, at Camp Wilson, San Antonio, Texas, is home on a month's leave of absence.

Dr. J. W. Helz, Fond du Lac, was so badly burned about the right arm and hand on November 13, as the result of a gasoline explosion, that partial amputation of the hand may be necessary.

Dr. W. F. Zierath, Sheboygan, recently underwent a second operation to the index finger of the right hand, which was infected early in October during an operation.

Drs. Claude S. Beebe, N. M. Black, William E. Grove, Franz Pfister, and H. B. Hitz, Milwaukee, will attend the twenty-first annual convention of the American Academy of Ophthalmology and Oto-Laryngology at Memphis, Tenn., December 10-16th.

Drs. H. E., D. J. and J. E. Twohig and F. P. Marshall will join Drs. P. J. Calvey, O. M. Layton, J. A. Clason and W. H. Folsom in the occupation of the new offices, on North Main Street, Fond du Lac, which the late Dr. J. P. Connell had established. Announcement of the reorganization of the Fond du Lac Clinic, of which Dr. Connell was the head, will be made later.

Dr. Thomas Jesperson, Neenah, has discovered a process, whereby printers' ink can be eliminated from newspapers, thus enabling mills to make all old newspaper over into paper again. Dr. Jesperson is now in New York City, where a company will be formed to put his invention in operation.

Walter Hoffmann, pitcher for the Mobile team of the Southern League, was arrested on November 23rd at Milwaukee, on a charge of practicing medicine without a license. Hoffmann, the police allege, was fined $100 recently on a similar charge.

The National Board of Medical Examiners held its first examination from October 16 to 21, in Washington, D. C. There were 32 applicants from 17 states, representing 24 medical schools, and of these 16 were accepted as having the necessary preliminary and medical qualifications, ten of whom

took the examination. The following men passed: Dr. Harry Sidney Newcomer, Johns Hopkins University; Dr. William White Southard, Johns Hopkins University; Dr. Orlo Chapin Snyder, University of Michigan; Dr. Thomas Arthur Johnson, Rush Medical School; Dr. Hjorleifur T. Kristjanson, Rush Medical School.

The second examination will be held in Washington, D. C., June, 1917. Further information may be had by applying to Dr. J. S. Rodman, Secretary, 2106 Walnut Street, Philadelphia, Pa.

Dr. J. L. Greene, formerly superintendent of the State Hospital for Nervous Diseases in Little Rock, Arkansas, and Dr. M. F. Lautman, formerly medical director of the Levi Memorial Hospital, Hot Springs, Arkansas, announce their association for the practice of medicine with offices in the Dugan-Stuart Building, Hot Springs, Arkansas.

With the single exception of one other city in the United States, Milwaukee had the lowest death rate during the month of October, according to the registrar of the bureau of vital statistics. The ratio in Milwaukee for October was 11.4 per 1000 population. Portland, Oregon, stood first in the list of cities with a ratio of 8.

The Trustees of Maple Crest, Manitowoc County's Tuberculosis Sanatorium, in their annual report to the county board, state that the institution is self supporting, and no appropriation is asked for the next year.

The Jefferson County Board voted down, by a vote of 26 to 10, the proposition of employing county visiting nurses. The expense—1,500 a year for each of six nurses, if it were done properly—was the supervisors' reason.

The Frederic Hospital, Frederic, Wisconsin, was opened to the public on November 9th. The hospital was established through the efforts of Dr. R. G. Arveson, and both he and Dr. Diamond occupy offices in the same building in which the hospital is located.

Portage soon will have a new $25,000 hospital. The site was donated by former Mayor Zienert, who has been one of the most active promoters of the project. There will be three floors in the building. The new hospital will be known as St. Joseph's and the Sisters of the Divine Savior will have charge.

Ashland business men have organized the Ashland General Hospital Association, and are trying to raise money to open an emergency hospital.

The City Hospital Association, Stevens Point, is preparing to launch a campaign to raise funds to pay the balance—$2,265.00—for the building of St. Michael's Hospital. The Association erected the hospital and invested $10,000 in the enterprise. The institution was then turned over to the Sisters of the Sorrowful Mother, who invested an equal sum. The balance is a liability against the officers and directors of the association. The Sisters have no connection whatever with this debt, which must be cared for by the association.

The Fond du Lac branch of the State Hygienic Laboratory is now established and in operation at St. Agnes Hospital, under the direction of Dr. F. M. Harris.

The schools at Amherst Junction were recently closed because of an outbreak of diphtheria.

Health Commissioner Ruhland, Milwaukee, will ask the common council to create the position of City Physician. During the past year the Health Department physicians have examined over 1,000 applicants in the city service commission. Part of the duties of the city physician would be to investigate all cases of sickness reported among city employees. It is reported that in New York last year the working days were increased 15 to 20 per cent by keeping a record of employees reported as being ill. The office will also save the city much money in the payment of industrial claims by eliminating from the service persons physically incompetent.

The State Board of Health offers a State Cooperative Laboratory of Hygiene to any city in the state that is willing to cooperate. The plan proposed is that the city shall appropriate a certain amount for the support of the laboratory. The State Board of Health will contribute a fund to the laboratory sufficient to pay for the expenses and services of a man to do the work that comes to it. In this way the rural physicians would also receive a benefit not otherwise obtainable.

Work of raising $2,600,000 to complete the funds for one of the world's largest medical schools, to be organized at the University of Chicago, was recently started. This is the last lap in the promotion of the medical school to cost $10,000,000. In addition to the $2,600,000 to be raised, the school will receive $1,000,000 from the Rockefeller

Foundation; $1,000,000 from the general education board, and a site provided by the University of Chicago. The school plans a consolidation of Rush Medical College, Sprague Memorial Hospital, the Presbyterian Hospital, the present medical school of the University of Chicago and several affiliated institutions.

The National Investigation Bureau, with offices at 924 Madison Avenue, Baltimore, Md., specializes in the investigation and mediation for policy holders and companies in all parts of the country of claims involving loss of life, limb, sight or time.

REMOVALS

Dr. E. W. Bowen, Wales to Watertown.

Dr. J. L. Williams, Oshkosh to Alhambra, Cal.

Dr. H. J. Friedman, Rib Lake to Rock Island, Ill.

Dr. A. D. Campbell, Richland Center to Madison.

Dr. Gertrude Batchelor, Madison to Chicago.

Dr. W. L. Boyden, Green Bay to Seymour.

Dr. R. D. Thompson, Black River Falls to Reedsburg.

Dr. W. H. Wilson, Ft. Atkinson to Stevens Point.

Dr. J. Donovan, Forestville to Milwaukee.

Dr. M. E. Rideout, Hortonville to Appleton.

Dr. E. C. Johnson, Iron River to Ashland.

Dr. P. G. Trowbridge, Jr., has located at Washburn.

MARRIAGES

Dr. John Lemmel, Albany, and Miss Katherine McCarthney, Belvidere, Ill., on November 29th, 1916.

Dr. Charles T. Foote, Hartford, and Miss Lulu Hays, Grand Rapids, on November 17th, 1916.

Dr. Melvin E. Johnson, Waukesha, and Miss Dorothy Williamson, Milwaukee, on November 7th, 1916.

DEATHS

Dr. Eugene Louis Doyen, the noted Surgeon of Paris, France, died after a brief illness on November 2, 1916, aged 57 years. Dr. Doyen had made a special study of cancer.

Dr. J. B. Root, Brandon, died on November 22, 1916, after a month's illness of heart trouble, aged 59 years. He was a graduate of Hahnemann Medical College, class of 1884, and for the past twenty-five years had practiced his profession in the village of Brandon.

STARCH AND TABLE SALT SOLD AS NEOSALVARSAN.

The recent indictment by the Federal Grand Jury in Newark, N. J., of "Dr." Jean F. Strandgaard, of Toronto, Canada, and George F. Hardaere, of Toronto, and a steward on the steamship "United States," has revealed to Chief Inspector E. R. Norwood, of the Customs Service in New York, what he believes to be a widespread conspiracy to defraud the Government out of customs revenue by smuggling salvarsan and neosalvarsan into the United States.

A most serious feature of this matter is the discovery by Inspector Norwood that these men also had in their possession a large quantity of spurious neosalvarsan. Upon analysis by the Government experts, the contents proved to be starch in the majority of the ampules and stained table salt in the others.

A further investigation showed that during July, 1916, Strandgaard had 15,000 ampules made in Jersey City, which upon his instructions were filled by the glass blower with either starch or salt. A remarkable coincidence is that during August and September, and as recently as the time Strandgaard was arrested in New York, physicians and drug stores all over the Middle West and the East were approached by women trying to sell, on the one pretense or another, the frauds made for Strandgaard. These spurious products were put up in imitation of either the German or particularly the English package, as marketed by the German manufacturers in England before the war, in square pasteboard cartons. They did not appear in round aluminum packages, like the American package. They are very cleverly executed, and their outside appearance even led experienced physicians to be deceived.

The product has been sold in New York, Chicago, Milwaukee, Cincinnati, Peoria, Kalamazoo, Detroit, Terre Haute and Mobile, and other Western and Southern cities, and is undoubtedly still being peddled on account of the great profits accruing to the saleswomen.

There is no need to call the attention of physicians to the dangers connected with the use of such frauds. In view of the serious and possibly fatal results which would follow the administration of these fraudulent salvarsans, it is incumbent upon medical men who have any information about the distribution or sale of these frauds to communicate with Chief Inspector E. R. Norwood, U. S. Customs House, New York, at their earliest opportunity, or, in case of emergency, with the local police authorities.

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The Wisconsin Medical Journal, Official Publication

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Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heldner, West Bend.
Waukesha	J. B. Nohle, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. P Zedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

CALUMET COUNTY

OCTOBER MEETING.

The Calumet County Medical Society held its regular meeting at the Calumet Club House, at New Holstein, October 19, 1916. All members with the exception of two were present. Dr. Harkins, Hilbert Junction, and Dr. McLaughlin, Stockbridge, were elected to membership. The following officers were elected for the coming year: president, E. L. Bolton, Chilton; vice-president, J. A. Schmidt, Brillion; secretary, C. L. R. McCollum, Forest Junction; delegate, F. P. Knauf, Kiel; alternate, Dr. Krohn, New Holstein; censor, Dr. Schmidt, School Hill.

The program committee was instructed to provide practical work for the society, and that all "papers" were "tabooed." The next meeting will be held at Brillion, Nov. 16. Subject—Chemical and Microscopical Examination of Urine.

C. L. R. MacCollum, M. D., *Secretary.*

NOVEMBER MEETING.

Calumet County Society met at Forest Junction on November 16, 1916. The program consisted of an exhaustive Urinary Analysis—chemical and microscopical—conducted by Drs. E. L. Bolton and N. J. Knauf, who are to be congratulated upon the thoroughness of their work. The few members who failed to attend missed a very instructive meeting. The report of the delegate, Dr. E. L. Bolton, to the State Medical Society's meeting was read, and the members who attended the Madison meeting agreed with their delegate in the criticism, that too much time was wasted in getting the sessions started. Medical and surgical fees were discussed, with reference to raising the present fees, which undoubtedly Calumet County will do in the near future. A chicken supper, with "trimmings," was served at midnight.

C. L. R. MacCollum, M. D., *Secretary.*

CHIPPEWA COUNTY

A regular meeting of Chippewa County Medical Society was held at Bloomer, on Oct. 11, 1916, with a very good attendance. Our worthy president, Dr. C. W. Wilkowski, presiding, and for the benefit of those members present, who could not attend the state meeting, he related his experiences there, which interested all present. Dr. Larson of Colfax, a visiting physician, was the principal entertainer of the evening, and earned considerable applause. Earlier in the evening, Noyes Bros. & Cutler's electrical supply man did some interesting demonstrations with the X-ray. Nothing of further interest.

F. T. McHugh, M. D., *Secretary.*

FOND DU LAC COUNTY

The annual election of officers of the Fond du Lac County Medical Society was held at the Palmer House, Fond du Lac, on November 9th, 1916. Dr. G. B. McKnight was elected president; Dr. J. R. Longley, vice-president; Dr. Henry C. Werner re-elected to the office of secretary and treasurer; Dr. S. E. Gavin, censor; and H. C. Werner, delegate. Dr. A. J. Pullen, the retiring president, addressed the society. The meeting was preceded by a banquet, tendered the society by Dr. Pullen. Among the speakers were Drs. Wiley, Mears, Gavin, H. E. Twohig and H. C. Werner. The doctors decided to hold joint meetings with the dentists, from time to time.

INTERURBAN ACADEMY OF MEDICINE.

The Interurban Academy of Medicine met at Superior on November 14th. Dr. W. A. Jones, of the University of Minnesota, addressed the Society on "Border Line Cases."

KENOSHA COUNTY

Kenosha County on October 26th had one of the most interesting meetings it has had in many a day. Compulsory health insurance was discussed, and tentative plans made to take the matter up at a special meeting that will be held some time in the near future, at which time it is hoped that it can be discussed more intelligently, as the report of the American Association for Labor Legislation will then be in our hands. We also plan meeting with our Senator and representative from this district, so that when the time comes they will at least know us, if we have occasion to call upon them regarding the matter.

J. F. Hastings, M. D., *Secretary.*

MARATHON COUNTY

Marathon County Medical Society held its monthly meeting at the Wausau Club, on November 14th. Addresses were made by Drs. S. M. B. Smith and R. W. Jones.

MILWAUKEE COUNTY.

Meeting called to order by the president, Dr. Franz Pfister. The minutes of the last meeting were read and approved as read. A communication was read from the Physicians' Radium Association of Chicago; this communication was referred to the program committee. Upon motion made by Dr. H. Reineking that the by-laws be suspended, and the secretary cast the ballot of the society, the following were elected to membership: Drs. A. L. Curtin, H. G. Decker, J. W. Hansen, F. W. Kappleman, M. J. Koch, A. Montgomery and F. B. Clarke. Motion was made by Dr. Kaumheimer, duly seconded and carried, that the secretary be authorized to purchase an addressograph, cost not to exceed $70.00. Dr. L. M. Warfield presented a case illustrating a rare form of Cardiac Lesion. Dr. S. Cahanna reported a case of leprosy, the laboratory findings in this case were reported by Dr. Daniel Hopkinson, with demonstration of stained smears and tissue. Dr. L. M. Warfield presented a paper on "Significance of High Pulse Pressure." Dr. B. H. Oberempt presented a paper on "Experiences as a Member of the American Physicians' Expedition at Vienna." There were 140 present.

Daniel Hopkinson, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

NOVEMBER 14, 1916.

Milwaukee Medical Society met on November 14, at the Society Rooms. Dr. F. B. Clarke was made a member at this meeting. Dr. Edward Quick spoke on "Injuries of the Back"; Dr. R. C. Brown on "Some Protein Manifestations in Children." The Council met after the regular meeting.

NOVEMBER 28, 1916.

Dr. C. W. Hopkins, Chicago, chief surgeon of the Northwestern Road, addressed the members of the Milwaukee Medical Society on November 28th. His subject was "Industrial Welfare Work as Applied to Railroads." Miss Katherine Olmsted, of the Wisconsin Anti-Tuberculosis Association spoke on "The Economic Value of the Public Health Nurse."

WINNEBAGO COUNTY-OSHKOSH MEDICAL AND NEENAH-MENASHA MEDICAL

Members of the Winnebago County, the Oshkosh Medical and the Neenah-Menasha Medical Clubs participated in a clinic held on the evening of November 7th, at Lakeside Hospital, Oshkosh. Dr. Frank Smithies, Chicago, conducted the clinic.

WEST WISCONSIN DISTRICT MEDICAL SOCIETY

The thirteenth annual meeting of the West Wisconsin District Medical Society was held at Eau Claire on November 14th. Dr. G. L. Bellis of Muirdale Sanatorium, Milwaukee, conducted a clinic on pulmonary tuberculosis at the Mount Washington Sanatorium. Medical and surgical clinics were held at Sacred Heart and Luther Hospitals. The evening was occupied by a banquet at the Eau Claire Club, at which Dr. Thomas H. Hay of Stevens Point acted as toastmaster.

WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION

A "Preparedness meeting" was the form taken by the eighth annual convention of the Wisconsin Anti-Tuberculosis Association, which met November 24-25, in the University Extension Building, Milwaukee. "Strengthening our Fortifications" and "Extending our Secret Service" were the preparedness subjects taken up at the first day's morning session. The afternoon was given over to "Reports from Volunteer Forces in the Field." The second day of the meeting was occupied by group conferences and tuberculosis clinics at Muirdale Sanatorium. Speakers were enlisted from all parts of the state.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

WITH this, the Christmas issue, we wish the readers of this page a happy holiday season.

In the rush of the season's duties and pleasures let us not miss the real meaning of Christmas, the old-time spirit of good will toward men. To one and all we wish a truly happy Christmas filled with joyful recollections of other days and other scenes at Christmastide.

HEREDITY AND HEALTH.*

BY PROF. R. C. MULLENIX,

LAWRENCE COLLEGE,

APPLETON.

Probably there is no need that I should assure you that I was grateful to be invited to speak to you on this occasion, and that it is a very great pleasure to me to be here and meet you, become a little better acquainted with your aims and work, and possibly myself experience a certain inbreathing of the spirit that was in Florence Nightingale, Clara Barton, and other heroines of your heroic profession. Of course, it is futile to attempt a comparison of the various vocations of life as to the service they render to the race, but when I so attempt such a comparison, I always think first of the farmers who produce the wheat and potatoes and pickles and cheese upon which we depend for our daily food. Then I think of the doctors and nurses who help us so much in our attempt to escape the evil consequences of our unhygienic living. Finally there came into my mind the preachers and teachers whose business it is to transmit to each new generation, as the generations pass, the racial heritage—to hand on the results of human experience, as man has acquired it in his contact with his fellow man and in his struggle with his environment.

*Read at the Annual Meeting of the Wisconsin State Nurses' Association, Milwaukee, Oct. 24th. 1916.

*The writer has drawn freely on the excellent book by Dr. Guyer on "Being Well Born."

After the farmers, then, I should say that our physicians and nurses are the people who stand most closely related to the problem of human welfare. It is not wise that I should spend any of your time in a disquisition upon the connection between health and happiness, or health and wealth, or health and success. You are sufficiently appreciative of the dependence of human welfare upon the proper functioning of the bodily organs. The question that you are anxious to have answered is "What are the factors that determine the health of the individual and the community?" Furthermore, you doubtless have a full appreciation of the importance of pickles and green apples as causes of human distress; you are well aware of the role of bacteria in disease production; you are well acquainted with the processes of sterilization and disinfection; you fully recognize the importance of hygienic living, and you are splendidly informed on the laws of hygiene. All these matters that I have been referring to as elements in health determination are included in what we call our environment.

Now, we biologists are in the habit of saying that the course of organic evolution has been along a line that is the resultant of the intersection of two great forces or tendencies—heredity and environment. We often say that the path of a human life is along a line that is the resultant of the interaction of three great forces—heredity, environment, and the human will. Now the thing that I am to talk about for a few minutes is heredity as a factor in health determination.

Many of the facts of heredity have been known to man for many centuries. Indeed, it is difficult to conceive a time, since the birth of man, when it was not known that figs do not come from thistles, nor roses from onions. In the earliest times of Hebrew history, it seems to have been well known that every living thing brought forth young "after its kind," and in modern times we have many popular expressions that indicate that many of the fundamental facts of heredity are matters of common knowledge, such as a "chip off the old block," "blood relationship," or "blood will tell."

It is only in comparatively recent years, however, that the facts of heredity have been subjected to study by the methods of precision which the man of science undertakes to bring to his work. This subject has been approached from several angles, and by a variety of methods, as a result of which our knowledge of the facts and laws relating to the transmission of parental characteristics to their offspring has been greatly extended. Much has been learned as to the mechanism of heredity, by the aid of the microscope, but the extensions of our knowledge that have been most interesting and important have been made by means of breeding experiments carried out upon plants and lower animals.

By the "mechanism of heredity" is meant those most remarkable of all the cells of the animal body, the sex cells, or eggs and spermatozoa. When we consider the potentialities of the human egg and sperm cell, we shall recognize that in these bits of living matter we confront one of the most bewildering mysteries of nature and one of the most perplexing problems of biological science. The expression "a chip off the old block," by which we often characterize a son who resembles his father in a striking way, is in no sense a figure of speech, but is an accurate statement of scientific truth. The egg and sperm are simply minute portions—chips—which break away and continue the life of the father and mother. The father is simply the elder half-brother of his son. At the same time, we may say that the son resembles the father because he is the father. He is simply his father's littler self. Heredity is not to be thought as the handing of a set of characteristics from one pair of individuals to another individual, as property is "handed down" by our laws of inheritance. The young simply continue the life of their parents.

The human egg is so small as to be scarcely visible to the unaided eye, and the portion of it that is directly concerned in the perpetuation of the characteristics of the mother constitute only about one thousandth of the weight of the egg. It has been calculated by Dr. Parker, of Harvard University, that the weight of the human body is 32 trillion 500 billion times that of this bit of matter in the egg that is directly concerned in heredity. Yet this infinitesimal speck of protoplasm is largely to determine the heighth of the man that is to be, the shape of his nose, the size of his ears and feet, the color of his skin, hair and eyes. The temperament or disposition of the future child is tucked away somewhere in this bit of protoplasm—something that determines whether he shall be naturally happy and cheerful or morose and melancholy; resolute and determined, or weak and vascillating. Somewhere in the germ cell resides a determiner which will fix unalterably the quality of the cubic inch of thinking substance in the brain

of the man that is to be, and tell the story of his native wit and intellectual ability.

The direct study of the phenomena of heredity has proceeded in two directions. Galton, Pierson, and the school of biologists that they represent have availed themselves of the statistical method, and have worked backward from living generations to their ancestry, seeking to determine extent of resemblance. This method of investigation has yielded valuable results. But the most fruitful source of information has been found in the reverse of this method of attack. Instead of undertaking to trace the ancestry of an individual, the method is to trace the progeny from a known ancestry. This is known as the experimental method, or the determination of the laws of heredity by the experimental breeding of plants and animals. The pioneer in this method of work was Gregor Mendell, the Austrian monk who conducted experiments in breeding peas in the garden connected with the monastery in which he lived. The results of eight years of careful work were published in 1866, and the law was formulated which now bears his name. Significance of Mendell's work was not appreciated for many years, however, and his paper sank out of sight until 1900, when the law was rediscovered simultaneously by three different workers in three different countries. At this time the paper of 1866 was resurrected, and the author was honored by having the law of segrenation named after him, Mendell's law. This rediscovery may be said to mark the beginning of a new era in biological investigation, for since 1900 heredity has occupied the center of the biological stage, and without any doubt our most important advances have been made in this field, and by recourse to the same method of experimental breeding that Mendell used. In this country, Castle of Harvard, Morgan of Columbia, Davenport of the Carnegie institution, and a few others, have taken the lead in these researches, which have resulted in a remarkable extension of our knowledge of the laws of heredity.

While it is not possible to gain a knowledge of human heredity by the direct experimental method, this method has been applied to lower animals, and it is found to be generally true that the same laws that determine the transmission of characters in the lower animals also hold for man to a considerable extent. However, it must be admitted that we are still a long way from a complete knowledge of the behavior of hereditary characters in the lower animals and that our knowledge of heredity in man is much less precise even than it is in the animals below us. What we may say is that the last 15 years have witnessed great progress in this field, and that the future is bright with promise for the further extension of our knowledge.

One aspect of heredity that has received a large amount of attention is the question whether modifications in an individual during his own life time are transmissible to his progeny. Weismann has done a large amount of experimental work on lower animals on this point. The question has been studied by many others, by various methods, and it must be recorded that thus far there is no clear evidence that such changes are passed on to later generations. This is commonly illustrated by reference to the strong right arm of the blacksmith.

The son undoubtedly may inherit his father's *capacity* to develop a strong muscle, but he must work up the muscular development for himself.

Illustrate the same point by reference to the musical achievements of parents, their intellectual achievements, or their moral victories. The fact that a person has a father or mother who is unusually competent in any manual art, or highly efficient in any form of intellectual activity, or who is remarkable for the development of his sense of right and wrong and his loyalty to the one and his aversion to the other—this does not at all signify that the young will be marked by the same qualities. It does indicate a very strong probability that the young will be endowed with large *capacities* in the same directions. Whether or not those capacities shall ever be realized will be determined by the home influences that are brought to bear, by the opportunities that are afforded, by the influences of the school and the community—those factors, which, taken collectively, we designate as the environment. For many, this is a disheartening consideration—that each generation has to begin at the bottom, and win its own victories. But we may console ourselves that it works both ways. The fact that a man's father did not play football does not debar him from that sport if he has the capacity. The fact that a man is a burglar does not necessarily consign his children to a life of crime. Capacities and tendencies are inherited. Achievements and acquirements die with their generation unless passed on to succeeding generations by means of books, home training, the school, the church, and other social agencies.

So, we find ourselves facing the old question of the relative potency of heredity and environment. We are born into the world endowed with certain capacities and hampered by certain limitations—physical, temperamental, intellectual. The extent to which our capacities shall be developed and our limitations overcome is determined by the environmental influences that are brought to bear upon us.

But while it is true that the course of any human life has a wide range of possibilities and is largely determined by the environmental influences that are brought to bear, we must recognize that each one of us has his tether—that for every one there is limit of capacity—and when we reach that limit we shall confront a legend, writ large in letters of flame—"Thus far shalt thou go, and no further." No man or woman ever went any further in the development of any power than his inherited capacities made it possible for him to go. Very few of us have ever approached a full realization of the potentialities along any single line with which we are endowed, by our heritage.

This bondage to the past, and indifference to the environment was well illustrated, so far as guinea pigs are concerned, by an interesting experiment which was performed a few years ago by Dr. Castle, of Harvard University. It is well known to any one who has had experience in breeding guinea pigs that when a black guinea pig is crossed with a white one, the young are always black. That is, in terms of the Mendellian law, white is recessive to black, which is dominant over the white, as we say. It is also an established fact that the progeny of a pair of pure white guinea pigs —Albinos—is always white, never black. Now Dr. Castle took two young guinea pigs, females, one white and the other black. The ovaries of the white one were removed, and into their place were grafted the ovaries from the black female. After this individual had recovered from the operation and had arrived at sexual maturity, she, a white female, was mated to a white male. By this crossing three litters of young were produced—a total of six individuals, all of which were black in color. Later experiments by Castle, with other varieties of guinea pigs, have confirmed the result. This shows clearly that the hair color is determined, not by the blood or anything else in the body of the mother in whose uterus the period of gestation is passed, but by determiners of some sort in the germ cells from which the young develop.

Now there is no doubt whatever but that the same law holds in human development, though of course it is not possible to test the matter in an experimental way.

This experiment has a direct bearing on a popular conception—or rather misconception—with which you, as nurses, doubtless come into frequent contact. I refer, of course, to the notion of "maternal impressions," or prenatal influences. I knew one mother who anticipated that her first born would be a prodigy in mathematics, for the reason that during the period of his uterine development she had spent her evenings in solving the problems in Ray's arithmetic, for the assistance of her husband who was teaching the country school that winter. I followed the development of this lad from the time that he was three years old, when I first knew him, until he was a student in college, and he impressed me as having been influenced far more by arithmetical stupidity of his father than by the mathematical ambitions of his mother. There is a certain class of so-called medical books which have a good deal to say about the possibilities of developing a new race of men, if only mothers will cultivate right states of mind during periods of gestation. The color of the eyes, the temperamental nature, the tastes, and the abilities of the developing child, are all supposed to be subject to the control of the mother, if only she will cultivate a proper tranquility and serenity of soul. When one recalls the facts as regards the anatomical relations between mother and foetus he cannot fail to recognize improbability of any such mental control on the part of the mother. There is no nervous connection between mother and foetus, the umbilical cord being devoid of nerves. How are the brain processes of the mother to reach the brain of the foetus? The foetus even has its own blood circulation, oxygen, food, and waste substances being exchanged by osmosis through the thin walls of the capillaries of the placenta.

(To be Concluded.)

NEWS ITEMS AND PERSONALS

A most interesting course of lectures on Political Economy and Sociology is in progress at the University Extension Building, 471 Van Buren St., Milwaukee. Prof. Gillen gives the entire course. The class is made up of social workers, teachers, principals of schools and nurses.

Mrs. Ida Barton, R. N., on Dec. 1 began her work as

Technician in the pathological laboratory of the Milwaukee County Hospital.

Rev. Paul B. Jenkins, of the Immanuel Presbyterian Church, will tell the Milwaukee County Nurses' Association of his experiences in the United States Military Training Camp at Plattsburg, N. Y. This talk will be given at the regular meeting of the Association on Dec. 12, at the County Nurses' Club, 566 Van Buren St., Milwaukee.

Mrs. L. D. Matchette, since Nov. 15, has been doing industrial social service work with the Phoenix Knitting Mills. For some time previous she had done visiting nursing with the County Tuberculosis Division.

The Central Council of Social Agencies of Milwaukee will hold its monthly meeting with luncheon at the County Nurses' Club on December 13.

In Chippewa and Polk Counties money has been appropriated for the support of rural nurses. The appointments have not yet been made.

Miss Jones, a graduate of the Milwaukee Hospital Training School for Nurses, has been working with the Visiting Nurses' Association of Milwaukee since December 5.

The Milwaukee County Nurses' Club will have a children's party and Christmas tree on the afternoon of December 23. The guests of honor will be children from the homes of patients of the Visiting Nurses.

The bazaar for the benefit of the Nurses' Club was held by the Milwaukee County Nurses' Association on November 28, at the Club house. Between three and four hundred dollars will be realized from the benefit.

Died:—On November 24, Emily Wendlandt, a graduate of the Union Hospital Training School, Chicago, Ill. Miss Wendlandt had been ill but a few days and her death was a shock to her many friends. She had been a resident of Milwaukee for several years.

The pupil nurses of the Theda Clark Memorial Hospital at Neenah entertained the Fox River Valley Nurses' Association at a "spread" at the Nurses' Home on Thanksgiving evening.

Mrs. Frederica Krueger Smith, graduate of Johns Hopkins, is teaching a Red Cross class of young women at the Neenah Young Women's Club House. The class consists of about sixty members and much interest is manifest.

On Nov. 14 at a meeting of the County Board of Waupaca County, a resolution favoring the appointment of a county nurse was presented and adopted and the sum of $1,500 was set aside to pay the salary of such a nurse and for necessary expenses.

Miss Maude Walker, R. N., surgical nurse at Kenosha Hospital, recently resigned her position on account of ill health. Miss J. Treat, R. N., a graduate of St. Luke's, Denver, succeeds Miss Walker.

Miss Myrtle Schnelling, class of 1916, has accepted the position of night supervisor at the Kenosha Hospital.

The Alumnae Association of the Kenosha Hospital has offered its services to the Associated Charities of that city for selling Red Cross Christmas seals early in December.

Miss Emma Wight, R. N., a graduate of the Kenosha Hospital Training School, class of 1913, was married Wednesday, Nov. 22, at her sister's home in Kenosha, to Guy Furgeson of Champlain, Ill. Mr. and Mrs. Furgeson will live in Champlain. Miss Wight has been head nurse on one of the floors of the Kenosha Hospital for the past two years. The Alumnae Association of which she was Treasurer, gave her a silver shower.

The Kenosha Hospital Board, this month, moved their nurses to new quarters. The old hospital building, which was formerly a dwelling, was taken, remodeled, papered and calcimined. This makes it very attractive with its wide porch, roomy living rooms with fireplace and comfortable sleeping rooms. Twenty-five nurses can be housed there.

In October, Mr. G. G. Simmons, the well known, generous, Kenosha manufacturer, purchased the property which encroached on the Hospital land to the south and made a gift of this to the hospital. The property is worth between $3,000 and $4,000, quite a substantial gift.

The La Crosse County Graduate Nurses' Association held its regular monthly meeting Nov. 13 at the Lutheran Hospital Nurses' Home. An interesting paper on American Red Cross was read by Miss Anna Dastych. A social hour followed and refreshments were served by senior pupils of the school.

Miss Stella Stetter has been appointed head nurse of the Obstetrical Department of St. Francis Hospital, La Crosse. Miss Stetter is a graduate of that school and a post graduate of the Chicago Lying-In Hospital.

The La Crosse Lutheran Hospital is building a new addition which will provide for the surgical and obstetrical departments and a number of private rooms.

On Nov. 1, a class of 13 nurses graduated from the La Crosse Lutheran Hospital Training School. Exercises were held at the Lutheran Church of Our Savior. A reception followed at the Nurses' Home.

The department of rural schools of the Women's Club of Madison held a meeting in November to discuss the advisability of employing a rural visiting nurse for Dane County. The meeting was addressed by Miss Maynard Downs and by Dr. Prince of Madison who is school physician of that city. Much interest was manifested but at a meeting of the County Board of Supervisors the matter was held over until the January meeting.

The November monthly meeting of the Dane County Graduate Nurses' Association was held in the city library. Miss Elizabeth Kelley, of the agricultural extension division of the university, spoke on "The Rural Nurse." All nurses of Madison were invited to attend.

The Wisconsin Medical Journal

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ORIGINAL ARTICLES

ANNUAL ADDRESS IN MEDICINE.

RECENT ADVANCES IN THE STUDY OF HEART DISEASE AND THEIR SIGNIFICANCE TO THE GENERAL PRACTITIONER OF MEDICINE.*

BY FRANCIS W. PEABODY, M. D.,

PETER BENT BRIGHAM HOSPITAL,

BOSTON.

The last ten years have witnessed an interesting and important change in the point of view from which the medical profession regards disease. Pathological anatomy, formerly the guiding star in clinical medicine, has given way to pathological physiology. The attention of the older generation was focused chiefly on the story of morbid anatomy, and practitioners of medicine attempted to adopt for themselves the mass of facts so recently brought to light by this comparatively new branch of science. The correlation of the findings at the bedside with the anatomical revelations at the post mortem table was perhaps the most potent intellectual stimulus to the clinician. At present, however, although the significance of anatomical changes in disease has in no way decreased, there is a tendency for them to be relegated to the background, and possibly placed in a better perspective, on account of the new interest in physiology. Medically, as well as socially, this is an era absorbed in dynamics and in function, and the question asked is no longer: what does a given organ look like? but, what does it or what can it do? In the Medical School, the course in Pathological Anatomy is supplemented by the experimental production of disease in animals and the study of the resulting abnormalities of function, whether mechanical, chemical, or nervous. Even in the field of pathological anatomy itself the development of the finer histological methods, such as those which demonstrate the mitochondria and the newly discovered granules in the secretory glands, aim directly at an interpretation of the functional state of the organs. So, likewise, in the hospital, the methods and the apparatus of the physiological laboratory have opened fields both broad and fertile to the worker in clinical research, and not a few methods, which but a short time ago belonged essentially to the physiologist, have become the accepted and necessary tools of the clinician.

This general trend of thought towards the effects of disease on physiological processes has recently manifested itself in attempts to develop functional tests of various organs for use in clinical medicine. The functional capacity of the gastro-intestinal canal, of the liver, the pancreas, the kidneys and the heart have been investigated, and already many facts have been obtained which have important bearing on obscure clinical problems. In no field, however, has this association with physiology produced such fundamental results as in that of the circulation. Here, most definitely, one finds the substitution of the physiological for the anatomical point of view. The old discussions as to the presence or absence of some faint or indefinite murmur in a patient with heart disease, while forming the basis for stimulating debate, are now recognized as being often of rather theoretical interest, and the practical physician finds himself less interested in slight valvular lesions, and more deeply concerned with the mechanism of the heart's action and the study of the functional capacity of the heart muscle.

The clinical application of the methods of physiology to the study of the diseases of the heart dates essentially from the early work of Mackenzie and Wenckebach. The graphic methods introduced by them for the study of the radial pulse, the cardiac impulse, the pulsations in the external jugular veins, and of the liver, form the basis of a vast

*Delivered at the 70th Annual Meeting of the Wisconsin State Medical Society, Madison, Oct. 4-6, 1916.

cance. Failure to recognize this fact has not infrequently led to the making of an unwarranted bad prognosis, and to unnecessary or even unjustifiable treatment.

The second type of irregularity, and the one which has occurred most frequently in our series of cases, is the extrasystole. The extrasystole, or the ectopic beat, is a premature beat, the impulse to which may, as electrocardiographic studies have shown, arise in some abnormal focus in either the auricle, the ventricle, or the junctional tissues between them. Practically speaking, it is, as far as we know at present, rarely of any clinical importance just where the impulse does arise, so that the determination as to whether an extrasystole is of auricular, ventricular, or nodal origin is really a point of rather academic interest. The essential point is to know that one is dealing with some kind of ectopic beat. Extrasystoles are usually easy to recognize clinically for they occur as incidental premature beats, breaking into an otherwise regular sequence. The most common type is that in which the normal rhythm is interrupted by an early weak beat, followed by a long pause. If the premature beat is very early or is particularly feeble, it may fail to open the aortic valves, so that there is no corresponding pulsation of the arteries, and on palpation of the radial pulse one notes only a prolonged pause which is the length of two normal pulse intervals or slightly less. From palpation of the radial artery alone this form of "dropped beat" may be confused with a partial heart block, but on auscultation at the apex of the heart the differential diagnosis is easily made, for the premature beat is accompanied by a first sound. If the cardiac impulse is not strong enough to open the aortic valves there may, however, be no associated second sound. Often each normal beat is followed by an extrasystole, and there is a bigeminal rhythm or coupling of the beats, but the persistence of a fundamental regular rhythm makes the diagnosis comparatively simple in by far the majority of cases. Only in rare instances, with frequent extrasystoles coming at irregular intervals or in groups, is there any real difficulty in recognizing the condition. In such cases a confusion with auricular fibrillation is possible, but careful observation will usually result in a correct diagnosis, and diagnosis is simplified by the fact that large numbers of extrasystoles do not often persist for long.

As would be expected from the great frequency of their occurrence, extrasystoles are met with in a considerable variety of conditions. In the first place, they are not uncommon in association with perfectly normal hearts. Certain persons have them more or less constantly throughout life without apparent cause, others chiefly when they are under nervous strain, as during physical examination, and still others after muscular exertion, or as a result of using coffee or tobacco. I have found them a number of times in perfectly healthy young athletes, and quite unassociated with exercise. Extrasystoles occur in many pathological conditions also, but they are perhaps most often seen in persons with myocardial degeneration, with vascular hypertension and cardiac hypertrophy, and during or after infectious diseases. They are also produced by large doses of digitalis. The question of the etiology of ectopic beats is one which is not clearly understood, but it is highly probable that there are many causes. In some conditions they are almost certainly of nervous origin, while in others, as in the infections, it is difficult not to associate them with the presence of local lesions in the heart muscle.

If, then, extrasystoles occur in such variety of clinical conditions, what can one say as to their significance? It is always unwise to make general statements in medical matters, but broadly speaking, extrasystoles have, in themselves, comparatively little significance. The importance of extrasystoles depends almost wholly on the clinical condition in which they occur. Thus, when they are found in a person whose heart is otherwise normal, they have little or no pathological meaning, and when they are present in a patient with high blood pressure or myocarditis they only rarely justify any other interpretation of the case than would be made on the basis of the rest of clinical findings. There are, of course, exceptions to this statement. Thus the persistence of extrasystoles after an infection leads one to consider the possibility of a myocardial involvement not indicated in other ways, and the presence of excessive numbers of extrasystoles in patients with myocarditis often makes one more cautious in his prognosis than he would otherwise be. Moreover, the fact that ventricular extrasystoles are produced by the administration of digitalis makes their presence sometimes a possible contraindication to the use of the drug, especially as it is known that in experimental digitalis poisoning the occurrence of ventricular extrasystoles may precede ventricular fibrillation and death. In some instances, however, extrasystoles

disappear if digitalis is given. In general, the treatment of cases with extrasystoles is that which would be indicated in the same case if no extrasystoles were present.

Auricular fibrillation, generally accepted as being the most common serious cardiac irregularity, was present in 32 per cent of the cases of our series. The clinical findings are so characteristic that in the great majority of cases it is easily recognized by merely listening to the heart or feeling the pulse. The condition can be readily produced in animals, and both experimental studies as well as clinical observations have contributed to make the gross features of the pathological physiology fairly definitely understood. There are fundamental abnormalities of the mechanism in both chambers of the heart. In the experimentally produced condition the auricles are found to be no longer contracting regularly. They are relaxed, dilated, passive, except for a fine fibrillary twitching of small groups of muscular fibres. Instead of being contractile organs playing their part in the cardiac cycle, they have become inactive reservoirs. At the same time the character of the ventricular action has become altered, and the normal regular rhythm of contraction is replaced by a completely irregular action in which there is a continual variation both in the strength of the beats and in the length of the diastolic pause. All semblance of a fundamental rhythm is lost, no series of pulse beats occurs with equal spacing between them, and the heart's action appears to have become wholly unsystematic. That the clinical condition which goes by the name of auricular fibrillation corresponds closely to this experimental picture is made certain by the X-ray, by venous pulse tracings, but more especially by the electrocardiogram, in which one finds the absolutely irregular action of the ventricles, associated with an absence of the normal evidences of auricular activity, and with the presence of small waves at a very rapid rate which without doubt represent the fibrillary twitching of the auricles. So much, then, is clear regarding the condition—the auricles are fibrillating and the ventricles are contracting, with complete irregularity, but beyond this it is difficult to attempt an interpretation of the underlying processes at present. The explanations as to why the auricles cease contracting and begin to fibrillate, as well as to why the auricular fibrillation is so constantly accompanied by irregular ventricular action are still based on theory.

From our clinical point of view the essential feature of auricular fibrillation is the associated ventricular irregularity, for this is so characteristic that it can almost always be recognized even without the aid of special instruments. The so-called "absolutely irregular pulse" seems to be pathognomonic of auricular fibrillation. The diagnosis can usually be made on feeling the radial pulse, for the variation in the strength of the beats, and more particularly the constant change in the length of the intervals between beats, with the resulting complete absence of any fundamental rhythm, are very striking. Sometimes, however, when the condition is not very clear from palpation of the pulse alone, it becomes more evident on auscultation of the heart. [In those cases in which auricular fibrillation occurs in association with a mitral stenosis an interesting diagnostic point is the presence of an early diastolic rumble localized at the apex of the heart, together with the absence of the typical presystolic roll which depends on the contraction of the auricle.] In a small proportion of cases the diagnosis may not be easy, and this happens most frequently when the heart's rate is rapid. The diastolic pauses are then so short that slight variations in their length are not particularly noticeable, and the heart's action may even seem to be regular. Somewhat more often auricular fibrillation may, as has been indicated, be confused with an extrasystolic arrhythmia in which the ectopic beats are coming with unusual frequency. These difficult cases are, however, the unusual ones, and in probably over 90 per cent of the cases the diagnosis of auricular fibrillation is almost self-evident.

In the early days of the recognition of the absolutely irregular pulse as a clinical type, it was generally considered to be a permanent form of arrhythmia, and was frequently called the "pulsus irregularis perpetus." Subsequent experience has shown that in most cases this is true, and that, once the irregularity is established, it persists throughout life. Many cases, however, have been observed in which it is only a transient phenomenon. Thus, for instance, it is not uncommon, on the one hand, for a patient to pass through one or more temporary periods of fibrillation before the heart settles down to the condition permanently, and, on the other hand, transient attacks may be seen in infections or as a result of poisons such as digitalis, which are subsequently followed by complete recovery.

The direct cause of the onset of auricular fibrillation is not known, but it is found most frequently in patients with a rather high degree of myocardial weakness. Often there is no valvular lesion of the heart, but among the cases with chronic endocarditis, mitral stenosis is the most common pathological finding. Recently a few cases have been described in which auricular fibrillation has occurred in patients whose hearts were normal to the ordinary methods of physical examination. I myself have under observation a rather unusually healthy and strong young man of thirty-six, in his college days a prominent athlete, who has had for six years frequent paroxysmal attacks of auricular fibrillation coming on without evident cause, and producing very little subjective disturbance. Between attacks the examination of the heart reveals absolutely nothing abnormal. Whether such hearts are, indeed, actually normal, or whether they have pathological lesions which we are not yet in a position to diagnosticate, is an open question, but the latter suppostion is perhaps the more probable. In this unusual type the condition is apt to appear in short transient attacks, but it may eventually go over into a permanent irregularity.

Granted, then, that the recognition of auricular fibrillation is simple, what does the clinician gain by differentiating this type if arrhythmia? It helps him, in the first place, in making the prognosis. In many cases of heart disease the presence of an auricular fibrillation indicates that the condition is much more serious than the other features of the case would lead one to suppose. This is particularly so when the case is seen in a stage of fairly good compensation. It is true that patients with auricular fibrillation may live for many years a comparatively active life, but it is a life on top of a volcano; and the cautious physician will do well to give a guarded prognosis. Even where the examination of the heart is otherwise negative, and where the attacks are transient, one should regard the condition seriously and as quite a different mater from an extrasystolic irregularity. Moreover, the making of the diagnosis of auricular fibrillation practically determines the prognosis as to the irregularity itself, for, in most instances, once it has set in, it continues permanently. With the exception of the rare instances just referred to, the condition either remains throughout life or it gives way to a remission which is shortly followed by a recurrence which persists. At any rate, one does not look for a disappearance of the cardiac irregularity, and treatment is neither directed towards this end, nor is its success in any way indicated by its effect on the irregularity.

In the matter of therapeutics, also, the recognition of auricular fibrillation is of practical importance, for in this condition the digitalis group of drugs is particularly efficient. Digitalis acts directly on the heart muscle and strengthens the force of its contraction, and it also acts through the vagus nerve. Perhaps the most characteristic vagus influence is the production of a heart block by the interference with the passage of contraction impulses from the auricle to the ventricle. While this effect may be seen in all hearts, both normal and pathological, it is particularly evident in auricular fibrillation, in which condition the number of stimuli passing to the ventricle is readily cut down, and the rate of ventricular contraction is slowed. Slowing of the heart rate is not often a striking feature of digitalis action in most conditions associated with a regular cardiac rhythm, but in auricular fibrillation, especially when the initial rate is high, the effect is remarkable, and it is, indeed, the best index to the efficacy with which the drug is working. Through its action on the pulse rate one has a guide to dosage, and to the length of time over which treatment should be continued. The manner in which clinical improvements corresponds to this slowing of the pulse rate accounts for the general opinion that it is in cases with auricular fibrillation in which one can expect the best results from digitalis therapy. This fact is, indeed, so definite that, given two patients with acute cardiac decompensation of similar grade, the one fibrillating and the other with regular rhythm, one can, with a fair degree of certainty, look for the best results from treatment in the patient with auricular fibrillation.

A type of arrhythmia somewhat closely allied to auricular fibrillation is that which is known as auricular flutter. It is rather rare, and was found only fifteen times in our series of cases. The essential feature of the condition is a rapid auricular contraction, from 300 to 350 times a minute, and a heart block, so that the ventricles may be beating at a rate of less than a hundred. The arterial pulsations may be either regular or irregular, depending on whether or not the degree of block is constant or is changing, but in either case the diagnosis is extremely difficult to make with cer-

tainty without the aid of venous tracings, or, better still, of an electrocardiogram. In occasional instances the venous waves in the neck may be seen to be out of proportion to the rate of ventricles, and the diagnosis may be suspected, but this is one of the conditions which one can scarcely hope to recognize without graphic methods.

More common, and of greater practical significance are the types of heart block without auricular tachycardia. This was one of the earliest of the disturbances of cardiac function in which the pathology was investigated from the physiological point of view, and a brilliant series of anatomical, physiological, and clinical researches have demonstrated that the conditions consist in an interference with the passage of impulses from the auricle through the conduction system described by His and Tawara to the ventricle. As a result of such an interference, one has, depending on the extent of the lesion, either a prolongation of the time between the contraction of the auricle and the contraction of the ventricle—the so-called "Prolonged conduction time"—or a partial heart block, in which the ventricle contracts in response to every second or third auricular contraction, or a complete heart block, in which there is no association between the two chambers, and each beats at its own rate.

A simple prolongation of conduction time cannot be recognized without the assistance of instruments of precision, but when the process has advanced to the production of a partial block it is often perfectly definite even to the ordinary methods of examination. This is especially the case when, as is most common, only an occasional beat is blocked. One has then a "dropped beat" with an interval between the arterial pulsations of slightly less than double the normal length. This resembles the dropped beat which is due to an extrasystole but it is easily differentiated by auscultation over the heart, for, with the extrasystole an early adventitious heart sound is heard, while with the heart block there is merely a long pause. The more unusual cases, in which there is a blocking of every second or third beat and consequently a slow regular arterial pulse are not easy to distinguish without graphic methods, although sometimes the diagnosis can be made by careful observation of the veins of the neck, which may be seen to pulsate owing to the auricular contractions during the long ventricular diastoles. Complete heart block with auriculo-ventricular dissociation, as it occurs in the Adams-Stokes syndrome, is usually quite simple to recognize as it is characterized by the assumption by the ventricles of the slow rate of contraction. A regular pulse with a rate of between twenty-five and thirty is almost pathognomonic of this condition. In addition, however, the diastoles are so long that one is often able to see the evidences of auricular systole in the neck veins, and sometimes on careful auscultation one may hear the sound of the contracting auricles.

The practical significance of the recognition of heart block is considerable. Partial block, with the dropping of occasional beats, may occur in patients with chronic myocardial degeneration, but it is perhaps most frequently met with as one of the sequellae of an acute infection. Rheumatic fever and pericarditis are the most common etiological factors, but other infections, such as typhoid or pneumonia, are occasionally the underlying cause. The presence of a partial block in association with such a condition may probably be taken as an indication of an inflammatory process in the myocardium. It is of course well known that areas of small cell infiltration in the cardiac muscle are a frequent result of rheumatic fever, but in most instances their position is such that they do not affect the functioning of the heart. When, however, they involve the specialized tissue of the conduction system, and are large enough in size to interfere with the passage of impulses, we have definite clinical evidences that the heart muscle is the seat of a serious process, and this fact serves as a guide to treatment in that it impresses the necessity of prolonged rest until the acute inflammatory condition shall be healed. Recovery is usually associated with a return of the function of conduction to normal, and resumption of a regular pulse, although graphic methods may show the persistence of a prolonged conduction-time.

Complete heart block, with or without the attacks of syncope which characterize the Adams-Stokes syndrome, is not as uncommon as it was once supposed to be. Shortly after its pathology was first described the literature became flooded with reports, and it seemed that every new instance was put into print, but now that the condition is generally recognized it is only the case of exceptional interest that is deemed worthy of publication. That which a decade ago was a new clinical entity, and as such worthy of marked veneration,

has already begun to take its place among the more vulgar diseases of clinical practice. Complete heart blocks occurs most often in association with advanced myocarditis and this leads to the making of a guarded prognosis, but one reason that its recognition has a practical bearing is that a certain proportion of the cases are due to syphilis with a gumma involving the conduction system. The diagnosis of heart block may, therefore, give a promising lead towards the specific treatment. But in still another direction the determination of heart block and of its grade has a therapeutic bearing. In partial heart block the use of digitalis is generally contraindicated since its administration tends to accentuate the condition and produce a higher degree of block, while in complete auriculo-ventricular dissociation digitalis may be used with impunity. It cannot make the conduction any worse, and it may exert a beneficial influence on the ventricle. In some, often very distressing cases, in which changes from a partial to a complete block and back to a partial block again occur frequently and in association with attacks of vertigo and syncope, the administration of digitalis may be advisable in order to produce a permanent complete block. Such a condition is usually preferable to a state of unstable rhythm.

Another type of heart block has come to be known through the use of the electrocardiogram. This is the so-called "branch block," due to interference with the passage of the impulse to contraction down one of the two branches of the bundle of His which lead to the right and left ventricles. This, too, occurs in patients with myocardial degeneration, but while it is of considerable pathological interest, it has, at present, no particular clinical significance, so that the fact that it cannot be recognized without an electrocardiogram is not an important matter.

I shall call your attention to one other type of irregular pulse. This is the "pulsus alternans," which is characterized chiefly by a regular spacing of the ventricular contractions with an alternation in the size of the arterial pulse beats. In a well marked case every other pulsation of the radial artery is felt to be a small one. This form of alternating pulse has long been recognized as of serious prognostic significance, but the work of White[1] at the Massachusetts General Hospital has recently added materially to our knowledge both of the interpretation, and of the means of recognition of the condition. White has shown that "pulsus alternans" is a much more common condition than has generally been supposed. It was present in 71 of 300 cardiac and cardiorenal patients examined by him in eight months. "Pulsus alternans" is as common as auricular fibrillation and, in fact, of 201 cases with cardiac decompensation, 66 had an alternating pulse and 65 had fibrillating auircles. The gravity of the condition, and its great importance from the point of view of prognosis is indicated by the fact that of 83 cases, 31.3 per cent are known to have died within ten months from the time the arrhythmia was discovered.[2] White has furthermore emphasized the fact that in a considerable proportion of cases the alternation is not a constant phenomenon, as in 70 per cent of his series it was present only after an extrasystole.

The recognition of pulsus alternans is, in the most marked instances, possible from palpation of the radial artery, but in the majority of cases some other method has to be resorted to. The use of the blood pressure apparatus with auscultation over the brachial artery when the pressure in the cuff is just below the systolic blood pressure reveals many more cases, but those with alternation occurring only after an extrasystole are usually best detected by means of radial tracings. However, the registration of the pulse in the radial artery is an extremely simple proceeding, and the value of the detection of pulsus alternans from the standpoint of prognosis makes the extra trouble worth while.

I should have performed a poor service, if while laying stress on the clinical value of the information concerning the functional disturbances of the heart which may be obtained in the course of the ordinary physical examination, I should seem in any way to underestimate the results of the use of more complicated graphic methods. Electrocardiograms, venous tracings, and even the comparatively simple radial tracings are of great assistance in confirming a diagnosis, or in clearing up a doubtful diagnosis. Their use, therefore, often simplifies the way for the clinician, giving him accurate information at small cost of time and trouble. By their use, and especially by the electrocardiogram, one can draw numerous conclusions as to the activity of the heart which cannot be reached in any other way. It is true that much of this knowledge

[1]White: Amer. Jour. Med. Scien., 1915, CL, 82.

[2]White: Boston Med. and Surg. Jour., 1915, CLXXIII, 312.

which is derived from the use of graphic methods is of chiefly academic interest at the present time, and it is fortunate that there is only a limited number of cases in which the correct diagnosis and treatment must be based on the findings of these more complicated procedures. Nevertheless, one must bear in mind that it is wholly as a result of the intensive application of these physiological methods that we now have so clear an insight into the mechanism of the disturbances of cardiac function, that the general practitioner can dispense with the methods themselves and at the same time obtain much of the practical assistance which may be derived from their use.

Worry.—Not all worry is preventable but for the most part it can be avoided. Most of our fears are never realized, and as a rule, if we meet our troubles day by day as they come without worrying about them before they arrive or fretting over them after they have passed, we will find that we have the strength to rise above them. Worry undermines the health to a certain extent. It really weakens the mental forces by tiring them out by doing nothing. Usually the relief from worry rests with the victim of this unhappy habit himself, but sometimes the real causes are not the ones which seem to explain the condition and we must go deep into our lives or have the assistance of those who are skilled in unraveling mental processes.

The best antidote for worry is a change of mental occupation, a getting away from the scenes which provoke worry, exercise in the open air, a good book, a pleasant recreation, or a temporary change of occupation. As a matter of mental health every sufferer from this unfortunate condition owes it to himself to discover some simple means of getting away from this habit which is destructive to health and peace of mind alike.

Food and Health.—One of the great elements in maintaining health is the regulation of the bodily intake to meet the appetite. The man who works with his hands requires more food than the brain worker. The man who labors in the open air needs more nourishment than he who sits cooped in an office all day long. Give the sedentary worker the appetite of the day laborer and if that appetite be uncontrolled the body will become clogged with the poisonous products of its own manufacture and physical deterioration will surely follow. It is just as bad to eat too much as it is to eat too little. To indulge the appetite to too great an extent is equally as pernicious as its constant repression. The best is to be found in an average course, neither over nor under-indulgence, neither the following of the inelastic dietary nor the promiscuous and ill-considered use of foods. Many a so-called case of dyspepsia is nothing in the world but the rebellion of an over-worked stomach, the remonstrance of a body which has been stuffed to repletion. A great deal has been accomplished in the reduction of infant mortality because we are able to control what infants may eat. Adults must for themselves exercise this as self control. If this is done there will be a decline in our adult mortality rates and an increase in health and efficiency.—U. S. Public Health Service.

CHILDREN AS HEALTH CRUSADERS.

Nowhere does the old adage, "It is hard to teach an old dog new tricks," prove itself more clearly than in public health education. In trying to educate a group of people, such as a state or a nation, with regard to the dangers and methods of treatment and prevention of a disease like tuberculosis, it is well-nigh impossible to break down the accumulated traditions of a generation.

Both on this account and because of the fact that tuberculosis is essentially in its last analysis a children's disease, the movement which has been given great stimulus in the last few years to educate the school children with regard to public health and the prevention of tuberculosis is extremely important. As a phase of this recent educational development, the organization of the Modern Health Crusaders on a more or less permanent basis this year by the National Association is of especial significance. This organization of the school children centers about the Red Cross Christmas Seal Sale. The children become members or Crusaders by performing certain definite tasks, such as selling a certain number of Seals, and they gain rank and merit by selling a larger number of Seals. Anti-tuberculosis workers will do well to utilize the holiday season as an initial opportunity to organize the boys and girls into Leagues of Modern Health Crusaders, to be utilized later on in certain definite campaigns.

Here is a group of children who will grow up with a distinct realization that personal and community health are really vital and tangible assets and that they must be conserved at all costs. The movement has great and far-reaching possibilities, provided the anti-tuberculosis workers of the country utilize it as they should.—*Jour. Outdoor Life*, Dec., 1916.

Blindness from Babies' Sore Eyes (Ophthalmia Neonatorum) would practically never occur if a prophylactic were used in the eyes of every infant immediately after birth, and if every case of redness, swelling and discharge from the eyes of infants were promptly and adequately treated.—*National Committee for the Prevention of Blindness.*

PROCEEDINGS OF THE HOUSE OF DELEGATES, STATE MEDICAL SOCIETY OF WISCONSIN, HELD AT THE SENATE CHAMBER, MADISON, WISCONSIN,

October 3, 4, 5 and 6, 1916.*

EVENING SESSION, TUESDAY, OCT. 3, 1916, 8 P. M.

Meeting called to order by the President, Dr. L. F. Jermain, Milwaukee.

PRESIDENT: The House of Delegates will please come to order and listen to the roll call of the delegates by the Secretary.

Secretary Rock Sleyster, Waupun, called the roll of delegates, and the roll call showed a quorum present.

PRESIDENT: There being a quorum present, I declare the House of Delegates organized.

The first order of business will be the report of the Committee on Public Policy and Legislation, Dr. J. P. McMahon, Chairman.

Gentlemen, these reports have all been printed in the hand book, as you have noticed, and the suggestion has been made that we dispense with the reading of these reports at this meeting. There is really no reason why, after having the printed reports in such compact form in this hand book, you should spend the time now in having the reports read.

DR. E. H. TOWNSEND, New Lisbon: I make the motion that the report be accepted as published in the hand book, and that the reading thereof be dispensed with.

Motion seconded.

DR. L. M. WARFIELD, Milwaukee: I should like to amend the motion, that the report be subject to revision, because there are some things in the reports which may have come up since these reports were written that the committee might like to add to the report.

DR. E. H. TOWNSEND: I accept the amendment.

PRESIDENT: The idea is to call on the chairman of the various committees as we go along, and instead of reading the reports as printed in the hand book, if they have anything supplementary to the reports, to state that at this time. Now you accept the amendment, Dr. Townsend?

DR. TOWNSEND: I accept the amendment.

PRESIDENT: You have heard the motion. Is there discussion of this motion? If not, all in favor will signify by saying "aye", opposed "no".

Motion carried unanimously.

PRESIDENT: The first report is that of the Committee on Public Policy and Legislation, Dr. J. P. McMahon, Chairman. Is Dr. McMahon here? If not, we will pass that report for the present, until Dr. McMahon arrives, and take up the next report, that of the Committee on Publication, A. J. Patek, Chairman.

DR. A. J. PATEK, Milwaukee: The report of the Committee on Publication is printed in the hand book, and I think by your ruling this would not be read at this time. The entire report of this committee is published in the book, and there is nothing supplementary to the report as found there.

PRESIDENT: You are not supposed to read the report. but if you have anything to add to the report, or anything further to say, that may be done.

DR. PATEK: I have nothing to add, Mr. President, to what has been mentioned in the book.

PRESIDENT: Does the House of Delegates wish to act individually on these reports, and accept them, or do I understand that these reports have been accepted by the previous motion?

DR. L. M. WARFIELD, Milwaukee: They ought to be subject to discussion, of course, if anyone cares to discuss them, but it seems to me that each report should be accepted individually.

PRESIDENT: If that is the wish of the House of Delegates, that can be done very expeditiously. What do you desire to do with the report of the Committee on Publication?

DR. L. M. WARFIELD, Milwaukee: I move that the report be accepted.

Motion seconded.

Motion put and carried.

PRESIDENT: The report of the Committee on Publication is accepted. The next report is that of the Committee on Medical Defense, Dr. G. E. Seaman, Chairman.

Report read by Dr. A. J. Patek, Milwaukee.

PRESIDENT: All in favor of accepting the report will signify it by saying "aye"; opposed "no."

Motion carried.

PRESIDENT: The motion is carried and the report is accepted.

Dr. McMahon, the report of the Committee on Public Policy and Legislation was passed. Have you anything to add or supplement to your report as printed in the hand book?

DR. J. P. MCMAHON, Milwaukee: Nothing, save that we hoped and expected that the committee appointed to make preliminary study of the question of Health Insurance would be ready to report at this time and thereby supplement our report.

PRESIDENT: The report of the Committee on Public Policy and Legislation is before the House for action. What is your desire with respect to this report?

DR. H. A. GILBERT, Madison: I move that the report be accepted and adopted.

Motion seconded.

Motion put and carried.

PRESIDENT: The next order of business is the election of a committee of twelve on nominations, one from each district. The secretary will please read the districts, and nominations can now be made.

The secretary read the list of districts, and the following nominations were made from the floor:

1st Dist.—G. E. Peterson, Waukesha.
2nd Dist.—Dr. H. J. Stalker, Kenosha.
3rd Dist.—Dr. L. R. Head, Madison.
4th Dist.—Dr. W. M. Gratiot, Mineral Point.
5th Dist.—Dr. G. W. Crosby, Sheboygan.

*The full reports of the various standing committees have already been published in the December number of the Journal.

6th Dist.—Dr. S. S. Hall, Ripon.
7th Dist.—Dr. E. H. Townsend, New Lisbon.
8th Dist.—Dr. W. H. Cantwell, Shawano.
9th Dist.—Dr. F. Pomainville, Grand Rapids.
10th Dist.—Dr. E. L. Boothby, St. Croix.
11th Dist.—Dr. Hosmer, Ashland.
12th Dist.—Dr. E. A. Fletcher, Milwaukee.

PRESIDENT: Are there any further nominations? If not, a motion is in order for the election of this Committee on Nominations.

DR. AXTELL, Superior: I move that the Committee be declared elected.

Motion seconded.

Motion put and carried.

PRESIDENT: The Committee on Nominations is expected to report to the House of Delegates on Thursday morning.

SECRETARY: I would suggest that the members of the Committee on Nominations meet right after the House of Delegates adjourns to-night, and make arrangements for getting together to-morrow.

PRESIDENT: The next order of business is the report of the Committee on Health and Public Instruction, Dr. Edward Evans, Chairman.

DR. EDWARD EVANS, La Crosse: Inasmuch as this committee had the expenditure of money in a small amount, and also had new ground to cover, I suppose that it is proper to make a few remarks on this report, which you will find on page 15 of the hand book.

Early in the year your committee took up and endeavored to carry on four lines of work. The first one was the education of the profession itself, and for this purpose we made arrangements with the Anti-Tuberculosis Association to send the "Crusader" to every member of the Society for a year, the Anti-Tuberculosis Society being good enough to match the $100 we appropriated out of our appropriation with $100 of their own, so as to cover the expense of sending the Crusader to the 1,800 members, approximately, of this Society, for ten months of the year. This has been done.

Another $50 was given to that Society because of it being the best organized educational Society in the state, for the purpose of circularizing with health leaflets any county society desiring them. That disposed of half the fund.

As you all know, there has been a great deal of criticism of obstetrical work, as being very much behind, not only in Wisconsin but in the United States, and inasmuch as Dr. Dorothy Reid Mendenhall, of Madison, had read a paper before the National Infant Mortality Society that created a great deal of criticism and comment, we decided to have her continue this work, and for that purpose appropriated another $100 to her, for the purpose of gathering statistics, and the value of this work will be demonstrated, as to whether it is of sufficient importance or not, in her paper Friday morning, which, while I am not making any criticism of the Program Committee, I am sorry to see her go at the end of the program Friday morning. I hope, however, that it will be the means of holding every member of the Society here until the paper has been presented. I think that many of those who are doing obstetrical work will hear things not to their credit, but perhaps to their advantage.

Another line of activity that we took up, was in endeavoring to have each county society in the state hold a public health meeting some time during the year. We have been able to get at this through the co-operation of the councillors, who have worked with us, to induce the county secretaries in their councillor districts to hold those meetings. There have been some 12 or 15 meetings held, and a good many more promised. Some of them have been pretty good meetings, and some of them rather poor; but one alone would pay for the whole endeavor, and that was the Pottinger meeting in Milwaukee, the expense of which was $31.25 to your committee. Otherwise the holding of those meetings, and the endeavor to get speakers and workers entailed no expense on the Society.

The 4th line of work we took up was along this line: I think that whoever made the motion last year that this Public Health and Education Committee be appointed to try to educate the citizens as well as the profession of Wisconsin, did not know of the activities along health lines which are going on in the state, and for that reason your committee endeavored to make a survey of the health activities of the state, and in doing this, they were ably assisted, of course, by the heads of those various departments; and the committee at this time desires to thank all those who gave us reports, without any expense to us. In this way your committee has obtained surveys of the work being done by the State Board of Health, the State Laboratory of Hygiene, the Clinical Department of the State University, the Wisconsin Psychiatric Institute, the State Board of Control, which is doing a great deal of health work, as you will see on reading their report, the Wisconsin Home for Feeble-Minded, the Committee of Examiners of Registered Nurses. And right here I should like to say that there is no public activity in the state of Wisconsin that is doing more for the elevation of hospital standards, and consequently for the promotion of public health, than this committee of Nurses. I think they have done more, in the 2 or 3 years that they have been in existence, to elevate hospital standards, than the profession has done in a third of a century. We have also reports from the medical director of normal schools, which has employed a physician to go around and visit and inspect the schools; from the Department of Public Instruction; from the Wisconsin State Tuberculosis Sanitorium; the Wisconsin Anti-Tuberculosis Association; and the Industrial Commission of Wisconsin.

Some of those I think are of great value. For instance, the report written by Mrs. Brandt, of the work being done and the development of the Wisconsin Anti-Tuberculosis Association. This is a work of real value. We are making no abstract of these reports for this meeting, because we hope, and the secretary hopes, to have them published in a special number of the state Journal.

The expense entailed in this matter has been $281.25. I should like to say that if the work of this committee

is to be carried on from year to year, that properly a good deal of the funds appropriated ought to be used by this committee for expenses, because the expense really is not very small, and, while this year it has been done without any expense to the Society, I do not think it can be well done in the future in that way.

Your committee have a few suggestions to make, as you will notice, and I think this ought to be taken up by this Society, if it is to be continued, or by some other Society of the state. I am sure that any of us who have ever had to deal with drunkards will feel the great need of an inebriate asylum of some sort for the treatment and cure of inebriates; some place we can send them to, whether they wish to go or not. I think this is a matter that ought to be dealt with.

The Home for Feeble-Minded at Chippewa Falls is so overcrowded that it has really become next to impossible to get that class of people properly taken care of, and I have made a suggestion that we work for an epileptic colony along the lines of that in the state of New York.

Just the other day I received a communication from a party in Milwaukee interested in the matter. A committee that was formed in Milwaukee to look into the question has become state-wide, and is making a survey of the feeble-minded of the state of Wisconsin, with the intention of introducing legislation at the next meeting of the legislature of this state, and they would very much like to get the moral, and perhaps other support of the State Medical Society of Wisconsin. I take this occasion to bring the work being done by that committee, before the House of Delegates, and ask you, if you see fit, at your meeting tomorrow, to endorse this work. I have a communication which will inform you as to what they are endeavoring to do, and what legislation they will ask for, and I shall be glad to present it to you, Mr. Secretary, for presentation to the House of Delegates to-morrow. Your committee would like very much to see this Society back them up in this endeavor.

I think that this Society should take up the question of compulsory health insurance, and trim our sails to the coming change. It will make a social revolution as far as medical practice is concerned, and I think that we ought to get acquainted with it, and I am glad to see that the president of our Society appointed a committee, which I believe has a report to make.

Another question that ought to be taken up by this committee, I think, if it is continued, is the cancer problem. Two years ago we made a sort of abortive report through a committee, but did not get at it very well. But there is now a national committee for state control of cancer that is making sensible and, I think, concerted effort to get reports from all over the United States, and I believe that your committee on Public Health and Education ought to co-operate with this committee in some way.

Your committee have made a recommendation for the discharge of this committee, but your honorable secretary of the Association of Penitentiaries seems to have a way of keeping people confined, and I understand, at least he told me so, that I have two years more to serve.

PRESIDENT: The report of the Committee on Health and Public Instruction is before you, Gentlemen, what is your desire?

SECRETARY: I want to add one correction to Dr. Evan's report with regard to the $50 for distributing the health leaflets. There is a balance of $46 remaining, which would continue that work next year very nicely.

I think in accepting this report the House of Delegates should vote the same committee a like sum for the work next year. The House of Delegates voted them $300, and I do not think that any committee the House of Delegates has appointed within recent years has accomplished as much.

PRESIDENT: Is there any motion?

DR. L. R. HEAD, Madison: I move that the report of the committee be accepted and adopted.

Motion seconded.

PRESIDENT: You have heard the motion. Are there any remarks on this motion.

DR. T. J. REDELINGS, Marinette: I did not hear the motion, but I presume it was a motion to accept the report of this committee.

PRESIDENT: Yes.

DR. REDELINGS: If that was the motion, I call your attention to the fact that the report of this committee ends with this comment, "We beg to be discharged from further duty." If the report is accepted, I think the committee is discharged. I do not know whether it is the intention of this organization to discharge that committee on so slight provocation or not.

DR. EVANS: I think you were hired just to look for jokers.

DR. REDELINGS: Yes, sure.

SECRETARY: In accepting this report did you intend to include the appropriation for the continuance of the work?

DR. HEAD: I should be glad to do that.

PRESIDENT: Is that committee elected for one year or for how long?

SECRETARY: One member for one year, one for two years, and one for three years. One member goes out this year, and two hold over.

PRESIDENT: Would accepting the report, Dr. Redelings, discharge your committee, if the committee was elected for one, two and three years?

DR. REDELINGS: I thought it was to cover a period of one year.

PRESIDENT: All we have to do is to elect a member to succeed the member elected for one year, and that will be done later when the committees are appointed or elected.

You have heard the motion, Gentlemen, that the report of the committee be accepted, and that the sum of $300 be voted for the use of this committee, the coming year. Does this motion with the incorporation of the $300 receive a second?

DR. L. M. WARFIELD, Milwaukee: I second the motion.

Motion put and seconded.

PRESIDENT: The next order of business is the report of the Committee on Medical Education, Dr. C. R. Bardeen. Dr. Bardeen, have you anything to add to your report?

DR. BARDEEN: Nothing to add.

PRESIDENT: What is your pleasure, Gentlemen, with regard to this report?

DR. H. A. GILBERT, Madison: I move that the report be accepted as printed.

Motion seconded.

Motion put and carried.

PRESIDENT: The next order of business is the report of the Committee on Necrology. Dr. Warfield, have you any supplementary report to make?

DR. L. M. WARFIELD, Milwaukee: I should like to add to the report as printed the names of Dr. B. C. Gudden, age 59, of Oshkosh, who recently in a fit of melancholy committed suicide; Dr. J. R. McClead, of Milwaukee, age 50, who died quite suddenly recently, and Dr. Fitzgibbons, whose name I will also add.

PRESIDENT: The report of this Committee is before you. What is your pleasure with regard to it, Gentlemen?

DR. W. F. ZIERATH, Sheboygan: I move that the report of the committee be accepted as read and added to by Wr. Warfield.

Motion seconded.

Motion put and carried.

PRESIDENT: There are some special committees that were appointed. There is a committee for the study and preparation of a first aid industrial package. This committee was appointed some time after the meeting last year. Dr. Hayes is chairman of that committee. Have you a report to make, Dr. Hayes?

SECRETARY SLEYSTER: That report is here. I did not get it in time for publication in the pamphlet, so we will ask Dr. Hayes to read the report.

The report of the First Aid Committee was read by Dr. D. J. Hayes, Milwaukee, as follows:

"September 16th, 1916.

REPORT OF THE FIRST AID COMMITTEE.

The First Aid Committee, held its first meeting in the office of Dr. D. J. Hayes, 1014 Majestic Bldg., Milwaukee, Wisconsin, the first week in February, 1916. There were present Dr. D. J. Hayes, Chairman; Dr. J. M. Dodd, Ashland; and Dr. Chas. Lemon, Milwaukee.

The proceedings of the "First Aid Conference" in Washington, August 23rd and 24th, 1915, were discussed and the committee considered in detail the question of a "First Aid Package".

It is the opinion of your committee that the triangular bandage, sterilized, without the use of antiseptics and without iodine in any form, is the most desirable first aid package. A package containing two trinagular bandages in a sterilized carton, is the one adopted by the United States Army and is the general use by the large railroads.

It was the opinion of the committee after full discussion, that first aid to the injured should consist of an application of a sterile bandage to a wound and that in exploration or cleansing of a wound it should be left to be done at a hospital or at a first aid room where the wound could be treated by a skillful assistant. Committee adjourned."

PRESIDENT: Gentlemen, you have heard the report of the committee, what is your pleasure with respect to it?

DR. WERNER, Fond du Lac: I move that the report of the committee be adopted as read.

Motion seconded.

Motion put and carried.

PRESIDENT: The president of the Society, after consultation with some of the members of the State Medical Society who are interested in the question. took it upon himself, without authority, to appoint a committee on Social Insurance, this committee to investigate and study the problems of social insurance and compulsory insurance.

Dr. Dearholt is chairman of this committee, and I would ask if he has any report to make at this time of that committee?

DR. H. E. DEARHOLT, Milwaukee: Yes, sir.

PRESIDENT: I want personally to take this occasion to thank Dr. Dearholt and the Committee for the excellent report that they have presented here to-night. The splendid work that this committee has done in the short time that has been at their disposal for the study of this question is a pleasant surprise. I think that probably the best thing to do would be to make a motion to accept this report at this time, and when the time comes for the election of committees to create this committee, because it has not as yet been created by the House of Delegates. I think it would be well for the House of Delegates to create this committee and continue it in the splendid work that has been begun. I will entertain a motion to accept the report of this committee.

DR. H. J. STALKER, Kenosha: I move that the report of the committee be accepted and placed on file.

Motion seconded.

PRESIDENT: You have heard the motion, Gentlemen, that the report be accepted and placed on file. The committee will first have to be created, as there is nothing in the by-laws that provides for any such committee. That can be done at a later session.

DR. J. P. MCMAHON, Milwaukee: Are we to understand that if this motion is passed now it cuts off discussion of the report by the House of Delegates, if so, I should like to inquire what more important subject could engage the time of the House of Delegates and whether or not the committee which may be permanently created are not entitled to be advised of the reasoning and opinions of the House of Delegates to the end that their conclusions may be brought to the attention of the Legislature.

PRESIDENT: This question is open for discussion on this motion to accept the report of the committee. The motion has been made and seconded to accept the report

of the committee, and we can now discuss this question. I do not see any objection to discussing at this time the broad question of social insurance or compulsory health insurance.

Dr. McMahon: I hope that there may be discussion of the subject, because I believe that it is due the tentative committee and also due the committee which may be permanently appointed to be counselled by the House of Delegates and advised of their pleasure in the matter.

President: Do you wish to discuss it?

Dr. McMahon: No I do not wish to discuss it, I simply wanted to know whether it was going to be placed on file without discussion or whether discussion may be had subsequent to accepting and placing it on file.

President: It is better to discuss it now before the motion is passed.

Dr. McMahon: My views on the subject were reduced to writing and printed in the Hand Book for delegates, but I really believe that the delegates who were supplied with copies of the tentative draft and who therefore had an opportunity to study the question in advance, should have some criticism or constructive suggestions to offer the Committee, and I trust that they will not be backward in presenting them at this time.

Dr. G. E. Peterson, Waukesha: This is a matter that is of interest to every member of the medical profession, or will be when the question comes before them, as to the facility with which the whole question is handled, both in reference to the British legislation and social insurance, and also the German legislation. I wish it were possible for every member of the State Medical Society to have some literature on the subject, if there be such, on the practical working of the plan, both from the standpoint of the Public and the standpoint of the practising physician. I suppose that is a matter that would be up to the permanent committee when appointed.

President: Is there any further discussion of this subject?

Dr. W. F. Zierath, Sheboygan: Mr. President and Gentlemen. It will take some money to keep this committee in working order. The committee will have to have funds to buy a great many pamphlets that are necessary, and the committee should be furnished with funds so that it can distribute the literature amongst the physicians of the state, in order that they may become posted on the subject. If this is not done, some are apt to go off half-cocked when the matter is brought before the state legislature, and advance arguments that will not hold water, and thereby create a great deal of confusion. It will be necessary to keep the medical men of the state in control, and the only way that can be done is to have them posted on the matter of health insurance, and that should be done by means of literature and pamphlets sent to them through this committee, and the committee should have funds to have these pamphlets printed and distributed.

Secretary Sleyster: Mr. President, I have one suggestion as to a method to bring this matter before the members of the different county societies. I attended the meeting of the Columbia County Society a couple of weeks ago, and was surprised to have the County Society almost as a unit put up to me the question of health insurance. They were anxious for information on the subject, and were asking for it. I think this information should be sent out to the county societies systematically. I think that a speaker should go to every county society before the 1st of January, and I would suggest one way of reaching them would be for the House of Delegates to instruct the Councilors to post themselves on the subject and be ready to talk to the County Society of their district between now and the 1st of January. To prepare the way for that, I can take the matter up with the different county secretaries, see that the meeting is arranged, and that they are placed on the program between now and that time. This method would distribute the work rather evenly among twelve men, and I do not know of a committee of twelve that could carry the information out to the different county societies as well as the councilors in the various districts could. I am just offering that as a suggestion for bringing the matter before each county society between now and the time the legislature meets.

Dr. M. R. Wilkinson, Oconomowoc: Mr. President and Gentlemen. A thought has come to me which I believe is worth mentioning. As to Dr. Sleyster's suggestion, it would take considerable work on the part of the 12 councilors to visit the different towns of the state. And in regard to sending out literature to the different members of the Society throughout the state, that would entail considerable expense. Furthermore, it is impossible at the present time to get all the information which we need, but from time to time more information will be gathered. We have at the present time a piece of literature circulating to each individual member of this Society, which reaches them, and which they are all able to read. If some one or two, or more, who are well posted upon this subject, will furnish articles to the Journal from month to month, or have issued an extra copy, if necessary, it will do more good than the plan suggested. If the Councilor goes to the County Society meeting he will not meet over 50 per cent. of the members there; but the Journal goes to all; Then from time to time give the articles in the Journal, to cover the subject in the best possible way, and let it soak in, because it takes time. I have received some literature on the subject, and it stuck in my neck. There is so much to it that one has to have time to consider it. If the Journal will take the matter up and little by little feed it to us, as the farmer does his cows to get them ready for market, we will probably be able to know something about it by the 1st of January.

President: Is there further discussion of this subject?

Dr. H. E. Dearholt, Milwaukee: Mr. President and Gentlemen. I neglected to state that we had made in our office late yesterday afternoon about 40 or 50 copies of this paper, and that just before six o'clock last night I discovered that one page was missing. Those were to be sent on to me but I have not as yet received any

mail from the office. But there will be somewhere in the neighborhood of 50 copies of this report sent out for such of you as may be sufficiently interested to look it over.

There has been a voluminous amount of material on health insurance in the American Medical Journal, and anyone who wishes to go back on his own account and look up that material can get it or our committee would be very glad to furnish bibliographies to anybody interested.

I will say furthermore that the United States Public Health Service has issued bulletins which can be obtained at nominal expense. If the House of Delegates should feel that it is a subject on which they wanted to appropriate money for the distribution of literature, perhaps arrangements could be made with the American Medical Association to get one of their bulletins on the subject, and also to secure the United States Public Health Service bulletins for distribution among the members of the Society, at not very great expense.

Dr. L. M. Warfield, Milwaukee. I would say that in the last number of the journal of the American Medical Association there are two articles, one by Rabinoff himself, in which reference is made to former numbers of the Journal of the American Medical Association, and also reference to the specal report of the Public Health Service, in which this question is discussed, and also with reference to labor legislation.

Dr. Wilkinson has already spoken of what I was going to suggest, and that is, that it seems to me that the columns of the Journal should be open to just this sort of thing. I have felt ever since I have been editor, that the members of the State Medical Society do not send in enough material to the State Medical Journal. They are willing to read it, but it is a one man journal, and probably always will be. Its columns are open to the expression of opinion by any member of the State Medical Society. They may not think so, but it really is, and it is the intention to publish any sort of literature that comes from Dr. Dearholt's office, and from his special workers, or from anybody in the State Society in regard to this whole question. We have from time to time published in the Journal extracts from the Public Health Service bulletins, and extracts from the Journal of the American Medical Association, and I am sure that during the last year there have been published in the Wisconsin Medical Journal at least half a dozen articles that have dealt specifically with this question of compulsory health insurance. So that the question has not been one that has not been touched upon in the Journal. There is hardly a number of the Journal in which there has not been something said about it throughout the past year.

President: Is there further discussion of the subject? If not, all in favor of the motion to accept this report will signify by saying "aye", opposed, "no".

Motion carried.

President: The report of the Delegate to the Annual Meeting of the American Medical Association is now in order. Dr. A. H. Levings is not here, but I believe the report is printed in the hand book. Will someone make a motion to deal with this report.

Dr. C. J. Hayes, Milwaukee: I move that the report as printed in the hand book be adopted.

Motion seconded.

Motion put and carried.

President: The next in order is the report of the Delegate to the Council on Medical Education, Dr. A. J. Patek, of Milwaukee.

Dr. A. J. Patek, Milwaukee: It was absolutely impossible for me to attend the meeting at the time it was held, so I have no report to make.

President: There is no report from the Delegate to the Council on Medical Education. We will now hear from the Delegate to the National Legislative Council, Dr. G. Windesheim, Kenosha.

Dr. G. Windesheim, Kenosha: Mr. President, the only thing I wish to add to the report as printed, is, that your Delegate did not find anything like a National Legislative Council, and consequently was at a loss as to where he belonged. He was, however, notified to meet with the Congress on Public Health and Legislation of the National Association, and did so. The report is printed in the hand book.

President: The report of the Delegate to the National Legislative Council is before you, Gentlemen. What is your desire with respect to this report.

Dr. L. M. Warfield, Milwaukee: I move that the report be accepted, and also move at the same time that the name be properly corrected, so that the next delegate we elect will know where he belongs.

I should also like to call attention to the last paragraph on the last page in the hand book, which reads as follows:

"Your delegate would recommend that this Society go on record as being in favor of the establishment of a federal Department of Health." I should like to see this Society go on record as favoring such a department.

Motion seconded.

President: Bear that in mind, Dr. Warfield, and bring it up later under the head of Miscellaneous and New Business.

A motion has been made and seconded to accept the report of the Delegate to the National Legislative Council. Are there any further remarks? If not, all in favor of this motion will say "aye"; opposed "no."

Motion carried.

President: Next in order is the report of the Chairman of the Council, Dr. Edward Evans.

Dr. Edward Evans, La Crosse: Mr. Chairman and Gentlemen: Inasmuch as the proceedings of the council at our annual meeting have already been published in the Journal, I suppose that none of you have seen it there, because from what Dr. Warfield says, no one reads the Journal apparently. But if you look up some of the back numbers you will find the proceedings of the council there, and it is not necessary to repeat them now.

President: There is no further report to make?

Dr. Evans: No, sir.

President: We come now to the report of councilors.

The report of the councilor from the 1st district was presented by Dr. M. R. Wilkinson, Oconomowoc, as follows:

The work has been performed by the secretaries of Jefferson and Waukesha Counties in a manner that cannot be surpassed. I am sorry to say that I cannot say as much for the secretary of either Dodge or Washington Co., as I have written once or twice during the season and have failed to hear from either one of them. They have not notified me, as they should according to their duties, under the constitution and by-laws of the Society, when they were to hold meetings. I should have been very glad to have attended a meeting during the summer months had they let me know when it would take place.

The standing of the different counties is as follows:

Dodge Co. last year 37, this year, 35; loss of two.

Jefferson Co. last year 32, this year 27; a loss of 5.

Washington Co. last year 16, this year 13, a loss of 3.

Waukesha Co. last year 46, this year 46.

I will say in regard to some of these members, which I call dead ones, that they are like nearly dead branches upon trees. Oftimes it is better to cut them off entirely than to be continually trying to revive them. We have really felt that way about some of them in Waukesha Co. When you have to hound a man 6 months out of 12 to get his annual dues, I think it is a reflection upon the Society. It shows a lack of appreciation upon his part of the working of the Society. It is almost an insult to the Society, and rather than to go after him and his paltry sum of money, I would say, let him die a natural death, and let the Society and the real workers go on. It is no loss to a Society to lose a member of that kind. We do not need his money if he does not need our co-operation and help. I know that one member in Waukesha Co. was dropped, the same as a stone is dropped into a well, and if he desires to get into the Society again it is going to be by some act upon his part, and not through any act of ours.

The total membership last year in the different societies in the district was 131, and this year it is 121. Considering that we have had 6 deaths and 6 removals, that is a satisfactory showing.

Dr. H. H. Albers, Allenton: I am here to represent Washington Co., and would like to say that we have elected a new secretary who is very enthusiastic, and we have had several very good meetings lately. A few weeks ago we had Dr. Smithies of Augustana Hospital there from Chicago, who gave us a good talk on intestinal stasis, and we are doing better, and will try to continue to do good work. The dropping off of the membership of 3 that Dr. Wilkinson speaks of, I think is due to two deaths, and one member was expelled, as his practice was a little bit shady. I think that is where the loss comes in.

The report of the councilor from the 2nd district, was presented by Dr. G. Windesheim, Kenosha, as follows:

The report for the 2nd district this year is not as good as formerly. Kenosha Co. was at one time the best county in the district, but has a loss of 6, with 4 delinquents and removals, and 4 resigned; new members 2, leaving the membership in the county 27, as compared with 33 last year.

Racine Co. is holding its own, having the same number of members, namely, 40, as they had last year. There was one removal and one new member.

Walworth Co. has a loss of one, with 28 members this year as compared to 29 last year. There was one removal and one new member.

The total for the 3rd district is 95 members, a loss of 7 as compared with last year. There were 5 delinquents, 6 removals and 4 new members.

I agree with Dr. Wilkinson that some of these delinquents had best be kept delinquent. They are men who absolutely do not take any interest whatsoever in Society work. They pay their dues under protest. They are not good members of the Society, and therefore, I did not urge them this past year to pay up their dues.

There is, however, an error in the delinquency of Kenosha County, in that one man who was credited with his dues for past year should have been credited for this year.

With regard to the scientific work in the district, and the fraternal spirit, I think it has kept up as well during the last year as in the previous years. In fact, some of the counties, Racine County especially, have been doing better in scientific work. The attendance at the meetings in Kenosha County and in Racine County, and also in Walworth County is fully up to the average, if not better than what it was in previous years.

Our district meeting has not been held yet this year, but will probably be held next week. This meeting was to have been held last week, but owing to some other medical society meeting not far away, to which some of the members wished to go, it was postponed until next week. We expect as usual a large attendance and a good program at this meeting, which will be held in Racine. And I should like to invite and do invite any of the members here present who feel so inclined to come and partake of our hospitality at that time. We usually invite the members of the Lake County, Illinois, Medical Society to our district meetings, and they generally turn out in goodly number, making it much more interesting and pleasant by having a larger crowd, especially of men with whom we associate, Lake County, Illinois, being a neighboring county.

The report of the councilor from the 3rd district was presented by Dr. F. T. Nye, Beloit, as follows:

The 3rd district has this report to make: Dane County had last year a membership of 100, and this year 102, a gain of 2. There were no removals, and two deaths, and 5 new members.

Columbia County had last year 30, and this year 31, a gain of one. There were two removals, one death, and three new members.

Green County had a membership of 19 last year, and 19 this year. There was one death, and no new members.

Rock County had a membership of 56 last year, and 54 this year, a loss of two. There was one removal and 3 deaths and 3 new members.

Sauk County last year had a membership of 21, and

this year 19, a loss of 2. There were no removals and no deaths, and no new members.

This leaves the total last year 226, and this year 225. There were 7 delinquents, 3 removals, 7 deaths, and 11 new members in the district.

The work of the district this year has been in a way taken out of our hands. Our secretaries have had little to do, from the standpoint of County Society work. Madison invited the State Society to meet in our district, and I believe all have felt relieved in large measure from doing as much work as they would usually do. So things medically have been reasonably quiet.

I started early in the year to get up a district meeting, either at Madison or near by, possibly at the north end of the district, but in going over the ground I soon discovered that it seemed better to put the matter off for the state meeting. Then suddenly something happened down around my own community. I had a notice of a meeting over at Freeport, of a part of my district. On first thought I gave it little attention, but it gradually began to dawn on me that something was happening across the line. This meeting embraced all of the counties on the northern line of the state of Illinois, and they included in that all of the counties across the line in southern Wisconsin, making about 9 counties. That took about nearly half of my district. So I went over to that meeting to see what was going on. The first man I met was, I believe, Dr. Sheldon, from my district. There was about 50 men, I think, there, representing these counties. The president and secretary of nearly every county that had been invited, was there. The idea was to have a large district meeting, to take the place of so many smaller district meetings, and it seemed good, and seemed to take well. They concluded at that meeting to have this meeting in September, and it was held last week, the week previous to our State meeting being held here. I attended that meeting also and found about 200 doctors at the first session the first afternoon that I got in there. I saw a few faces that were familiar from our state, but only a few, and reasoned again that it must be owing to the fact that our State Society meeting would occur so soon thereafter. But in the two day session held they had a program of about 50 papers, which were up to the minute, scientific, and of great value. They had outside speakers, and some of our most eloquent as well as scientific men to address the meeting. After the first session a business session was called, which included not only the president and secretary of each county society, but the councilor from each district represented. I was put upon the Committee on Constitution and By-Laws, with our friend Dr. Sheldon, and Dr. Windmiller of Woodstock, Ill. Through the valuable assistance of Dr. Sheldon we got up a constitution and by-laws which looked to us to be reasonably good enough for most any medical meeting, keeping it as nearly in line as possible with the rulings of the American Medical Association. At this business meeting the subject of a name came up, which was part of the constitution and by-laws committee work. They had about concluded to call it the Confederation of Medical Societies, but after this start had been made they found that they did not have room enough. There were so many other counties nearby that wanted to join the Society, that it was inclined to grow. So a resolution was passed, or an amendment made, to the effect that they name it the Tri-State District Medical Society. In that way there is no county and no district. It makes no difference, all are eligible to come into the Society. The first meeting was held at Freeport. I did not learn where the next meeting is to be held.

Dr. C. S. Sheldon, Madison: Dubuque, Iowa.

Dr. Nye: Dubuque, Iowa. That will be reasonable. It is an annual meeting, and should come back to our state perhaps in two years.

Now it is a question as to whether or not there will be any ill influence upon our district or societies. Personally I think that the more societies, the better. I never got into a society without getting some good out of it. And when I get into a society and find 200 men enjoying themselves, I conclude that they get some good out of it. So I do not think that it injured my district at all. I think that my district expected that it would be bettered by association with those men across the line. So after all we have had quite a little work to do along the line of district societies during the year. I should like to ask Dr. Sheldon whether they changed, as they agreed to do, and had a nominating committee, or whether they still use the president and secretary as the executive committee.

Dr. C. S. Sheldon, Madison: The president and secretary of the county societies are the executive committee.

Dr. Nye: They still continue as the executive committee?

Dr. Sheldon: Yes.

Dr. Nye: Aside from that my report is completed.

(The councilor of the 4th district was not present.)

The report of the councilor from the 5th district was presented by Dr. W. F. Zierath, Sheboygan, as follows:

The situation in the 5th district is very good. The 5th district has reached the situation of having every man practicing in four counties who is eligible for membership in the County Medical Society as a member of the County Medical Society.

The councilor visited only two societies during the last year. The reason he did not visit the other two societies was because he could not get the secretaries to tell him when and where the meetings were held.

The situation in Sheboygan County is very bad. So far as the membership is concerned, the Society is in good condition, but they have had only one meeting, besides the meeting at which they elected the officers. Since then they have had no meeting, and I have not taken very great pains to urge them to have a meeting. I was secretary of that county society for six years, and the autocratic attitude of that secretary met the displeasure of certain members, who put him out of office; so I felt it was best to let the new officers absolutely alone to handle the county society just as they thought it ought to have been handled before, and the meetings have certainly decreased. They have no meetings at all. When I first took charge of that county society it had 16 members, and when I left, it had 48 members. I

think that most of the members are rather disappointed with the situation, and this coming year a new set of officers will be elected who will do what officers are expected to do, that is, have programs and have meetings and keep up the scientific work. So far as membership is concerned, there is no complaint to make.

(The 6th district councilor was not present.)

The report of the councilor from the 7th district was presented by Dr. Edward Evans, La Crosse, as follows:

The 7th district, according to the state secretary, is on the honor roll. We have had a decrease in membership, due, however, to natural causes, such as removals and deaths. I think we have almost all of the desirables in the district, and a considerable number of undesirables who are paying their dues, and hence in good standing.

Scientifically the district is dead, and I think properly belongs to the chairman of the Committee on Necrology.

The report of the councilor from the 8th district was presented by Dr. T. J. Redelings, Marinette, as follows:

Mr. Chairman and Gentlemen: I haven't anything special to report from the 8th district. The total membership for the district is only 55, and that has been our maximum membership. We now have a membership of 48. There are four delinquents, and there have been four removals and one death, and one new member. They are not doing very much.

Oconto County was reorganized, and is again on the map. There is a movement on foot now to unite it with Marinette-Florence. This matter has been voted by the council a number of times, and if these men will come to terms with us we will be very glad to take them in.

The scientific work of the district I think is just at an average state. We are one meeting short this year, but we have had some very good meetings in the district. I really think that we have all the desirable physicians in the district on our roll.

(The councilor from the 9th district was not present.)

The report of the councilor from the 10th district was presented by Dr. Rollo Cairns of Black River Falls, as follows:

Conditions in the 10th district are little changed from what they were a year ago. Barron, Polk, Washburn, Sawyer, and Burnett County had a membership of 33 last year, and 32 this year, a loss of one. There has been a change of secretary in this locality, and I know that the professional spirit there is better than it was a year ago. I think they are having good live meetings.

Chippewa County had 21 last year and has 17 this year, a loss of 4. I cannot account for this. The Chippewa County Society has been in good condition.

Dunn-Pepin had a membership of 18 last year, and has 21 this year, a gain of 3. This Society is in good working order.

Eau Claire had a membership of 39 last year, and 37 this year, a loss of 2. The Eau Claire Society is having good meetings.

Pierce County had a membership of 12 last year, and 9 this year, a loss of 3. The Pierce County Society has been in rather poor condition. It is showing a lack of interest, due chiefly, I think, to the scattered condition of its members, and the lack of facilities for getting together.

Rusk County had a membership last year of 10, and this year 9, a loss of one. Ever since I have been a councilor, this Rusk County Society has been a nominal society. They pay their dues, and, so far as I can learn, have never had a scientific program.

St. Croix County last year had a membership of 19, and this year 21, a gain of 2. The St. Croix County Society has had, I think, only one or two meetings in the past year, but they have recently elected a new secretary, the former secretary leaving the state, and I believe that St. Croix County, with its new secretary, will be in line for better work the coming year.

We have each year one good large district meeting at Eau Claire. This is a one day meeting, usually held in the month of November, and it is always well attended and well worth the time of the men who attend it.

The report from the 11th district was presented by Dr. J. M. Dodd, of Ashland, as follows:

Conditions in the 11th district remain about the same as they were last year. There is a loss of one in membership.

The scientific spirit remains about the same.

The number of meetings are becoming fewer, owing partly to the difficulties occasioned by the distances that members have to travel in order to get to the meeting, but also largely due to the character of the officers elected in the various societies. The general welfare of these societies of the district will be bettered when some of these things proposed at the meeting this afternoon are put into effect, and when they shall elect some really live officers to preside over the societies. I think that we do not attach sufficient importance to the election of officers, and especially to the election of secretary. It does not make so much difference whom you elect as president of your county society, but you ought to give a lot of consideration to the man whom you elect as secretary, and then you are oftentimes saved an immense amount of regret. If you go to the meetings unprepared you are pretty sure to elect a secretary who is not qualified and does not want the place, and who gives it very little attention. The success of the society will depend almost entirely upon the men elected as secretaries of the different societies. For years I have myself been interested in the election of secretaries for our societies, and in every instance where we have allowed it to go without direction, the man elected has been someone who should not be in the office, and the result is that there is no work done during that year. Unfortunately we are so situated this year. There was a man elected secretary who should not have been elected, and there has not been a single general meeting, I think, of the society during the year, and probably will not be until the annual meeting, at which I trust a real live secretary will be elected.

The report of the councilor for the 12th district was presented by Dr. Hoyt E. Dearholt, of Milwaukee, as follows:

The 12th district consists of the Milwaukee Medical

Society, which is growing bigger and better each year. I do not think you are interested in the figures.

Dr. G. Windesheim, Kenosha: Mr. President and Gentlemen: I should like to record an objection to the report given by one of the councilors. For the past six months I have had the good fortune to become acquainted and have been professionally working with two young ladies coming from this councilor's district. The councilor, Dr. Evans, said that his district is dead. Now a district that produces men of the caliber of Dr. Evans, and other men of the same caliber, whom I know, and produces nurses of the quality that they have turned out, is not scientifically dead.

Dr. Evans: Thank you.

President: Your objection will be recorded.

Dr. T. J. Redelings, Marinette: I move you that we adjourn.

President: Dr. Redelings, will you state the hour of the meeting tomorrow morning?

Dr. Redelings: I hesitate to do that; if it is up to me to determine at my pleasure, I would say 9:30. We were on the road all night last night, and got very little sleep.

President: That will give us a two hours' session of the House of Delegates tomorrow morning, from 9:30 to 11:30, which ought to be long enough. We have proceeded very splendidly this evening with the business of the House of Delegates, and that would probably be a sufficient length of time for the session tomorrow morning.

Motion seconded.

Motion put and carried.

President: The House of Delegates will meet in this hall tomorrow morning at 9:30.

MORNING SESSION, WEDNESDAY, OCTOBER 4, 1916, 9:30 A. M.

House of Delegates met pursuant to adjournment. Meeting called to order by the President.

The roll call showed a quorum present.

President: We will now listen to the reading of the minutes of the last meeting.

The minutes of the last meeting were read by the secretary.

President: Gentlemen, you have heard the reading of the minutes. Are there any additions or corrections to the minutes as read? If not, they will stand approved as read.

The next order of business is the report of the treasurer, Dr. S. S. Hall, Ripon.

The report of the treasurer was reported by Dr. S. S. Hall, Ripon (see December number of Journal).

President: Gentlemen, you have heard the reading of the report of the treasurer. What is your desire to do with this report?

Dr. E. H. Townsend, New Lisbon: I move that the report be accepted.

President: I think the appointment of an Auditing Committee is in order to audit that account. How do you wish that committee appointed? Should that committee be appointed by the council?

Secretary Sleyster: It is a committee of the council.

Dr. L. M. Warfield, Milwaukee: I move that the report be referred to the Auditing Committee of the council.

Motion seconded.

President: An auditing committee to be appointed by the Chair?

Dr. L. M. Warfield: I think there is generally an auditing committee appointed by the Chair.

President: You have heard the motion that the report be referred to an auditing committee appointed by the Chair, the auditing committee to consist of members of the council. Are there any remarks on this motion? If not, all in favor of the motion will say "aye"; opposed, "no."

Motion carried.

President: I appoint upon the Auditing Committee Dr. F. T. Nye, Dr. Rollo Cairns, and Dr. J. M. Dodd.

Dr. S. S. Hall, Ripon: I think that Dr. Nye has gone home.

President: Dr. Redelings, will you please act on that committee? I will appoint Dr. Redelings, Dr. Cairns and Dr. Dodd.

We will next listen to the report of the secretary.

The report of the secretary was presented by Dr. Rock Sleyster, Waupun (see December number of Journal).

President: Gentlemen, the excellent report of the secretary is before you. What is your pleasure in regard to it?

Dr. H. A. Gilbert, Madison: I move that the report be adopted as read.

Motion seconded.

Dr. E. H. Townsend, New Lisbon: Mr. President, I move that the House of Delegates thank Dr. Sleyster for this able and thorough report that he has given us. I would embody that in the original motion.

Motion seconded.

Motion put and carried.

President: The motion to accept the report and that we thank Dr. Sleyster for his splendid work is unanimously carried.

Dr. Sleyster: Thank you, Mr. President and Gentlemen.

President: The next business is the election of delegates and alternates to the American Medical Association to succeed Dr. A. H. Levings, Milwaukee, and J. F. Pember, of Janesville, delegates, and M. E. Corbett, of Oshkosh, and Edward Evans of La Crosse, alternates.

Dr. L. M. Warfield, Milwaukee: Mr. Chairman, at this time when we are about to elect our delegates to the American Medical Association, it seems to me that we ought to give a considerable amount of thought in the selection of the men who are to represent us in the American Medical Association. We need now more than ever men who are of a positive character, who can get up on their feet on the floor of a meeting and say what they have to say and say it well, men who are actively and vitally interested in the problems of the medical

profession. With that in view, I think that one of the men who should go from this State Society as a delegate to the American Medical Association should always be the secretary of the State Association. He is the man most conversant with the situation, and he is the man who should always be one of the three delegates.

Another thing which I have to propose is that, as we have 3 delegates, and the delegates are elected for 3 years, that one delegate be elected each year, so that we shall always leave in the House of Delegates two men who have seen service, and one man who comes in and serves for his 3 years.

Before I propose any names, I should like to know from our constitutional authority whether this would necessitate an amendment to our by-laws or to our constitution.

SECRETARY SLEYSTER: No.

DR. L. M. WARFIELD: Then I should like to move that in electing the delegates to the American Medical Association, that one of these delegates shall be the secretary of the State Medical Society, and that the delegates, except for the State Medical Society secretary, should serve for 3 years, one to be elected every year, that is to say, when the time came around to select a delegate to succeed Dr. Sleyster, if he were the secretary of the Association, we would re-elect him. It would not change the regular routine.

PRESIDENT: Is there any provision in the by-laws conflicting?

SECRETARY SLEYSTER: I do not think there is anything in the constitution or by-laws to conflict with that at all, Mr. President. The American Medical Association called on us to elect delegates to the American Medical Association, and that is all there is to that. I do not think the constitution covers it.

DR. L. M. WARFIELD, Milwaukee: We can elect our delegates to suit ourselves as far as I interpret it, and if we care to incorporate this just as a mere form of routine, and as something which will become eventually custom, I see no reason why we cannot do it, or why it will conflict with our constitution and by-laws. I think, Mr. President, in order to simplify this matter, that I will change my motion and move you that the secretary of the State Association be always one of the delegates from this Society to the American Medical Association.

Motion seconded.

PRESIDENT: You have heard the motion, Gentlemen, are there any remarks on this motion?

DR. P. W. LEITZELL, Benton: Mr. Chairman and Gentlemen. I cannot see how that would hold good, unless we have broken away from parliamentary rules altogether. There has got to be a change in the constitution if you do not elect the man for 1 year, 2 years, 3 years or 4 years. We can elect him by mentioning his name each year, and have it a custom, but I cannot see how that would hold if anyone should make objection, although it is perfectly agreeable to me.

PRESIDENT: It seems to me that if you want to do that you will have to make some provision in the by-laws by which the secretary of the Society is, by virtue of his office, a delegate. I think the better plan would be, if you want the secretary to be a delegate, to elect him and keep on re-electing him whenever his term expires. I think, as the doctor has just said, that you would have to have a provision in the by-laws by which the secretary would be, by virtue of his office, a delegate to the American Medical Association. Dr. Windesheim, do you know anything about the manner of electing delegates in the past?

DR. G. WINDESHEIM, Kenosha: In the past the delegates have been elected every year, two for one year, one for two years, and another year one, because the delegates were supposed to be elected for not less than a 2 years' term. However, we have elected them every year. The outgoing delegate has been replaced by someone else. There is no provision in the constitution and by-laws which regulates the selection of delegates in any special way. The proposition of Dr. Warfield, while it might be subject to some objection, is acceptable as far as the constitution and by-laws are concerned. We are allowed 3 delegates to the American Medical Association and we can select them in any way we please. We can select one every year to serve for a term of 3 years. We all know that a delegate who is elected for one year to any conference or meeting has not the power that a delegate would have who has been attending the meetings for 2 or more years, because he does not know the routine of the work. The suggestion that the secretary of the State Medical Society should be elected as a delegate, is probably a good one, because the Secretary of the State Medical Society knows more about the needs of the State Medical Society than any other man in the Society. However, if every state would follow the plan, the House of Delegates of the American Medical Association would become a permanent fixture, since the secretaries of the state societies are usually kept in office from year to year. As long as they will serve or give satisfaction the same men would be going there all the time, and there would not be any change, or very little change in the House of Delegates of the American Medical Association. Hence, the proposition of electing the delegates for 3 years, and electing one each year, is a good suggestion. And I am in favor of electing the secretary as one of the delegates for the reason, stated before, that he knows more about the needs of the Medical profession, and can represent his state society better than any other man, in the House of Delegates of the American Medical Association. And if the other two men are changed every 3 years it would not make the House of Delegates of the American Medical Association at all undemocratic. The suggestion has been made that, in view of the fact that the delegates from the State Medical Societies are not always competent to hold their ground, that some certain cliques have been running the House of Delegates of the American Medical Association. I do not know that that is the case, for I have never been there, but that suggestion has been made. So that, to protect the profession at large, the plan of selecting the delegates for 3 years is, I think, a good one, and the plan of having at least one, and there cannot be a better man than the state secretary. If a motion has been made, I should like to add to or make an amendment to that

motion, that the secretary of the State Society be *ex officio* one of the delegates to the American Medical Association, and is supposed to attend every meeting of the House of Delegates of the American Medical Association, no matter where the meeting would be held, and that his expenses should be paid by the State Medical Society.

DR. D. J. HAYES, Milwaukee: May I inquire if there is a motion now before the House?

PRESIDENT: Doctor, I do not think the motion received a second. I should like to ask the secretary who the hold-over delegate is, and for how long he has held office.

SECRETARY SLEYSTER: Dr. T. H. Hay holds over, and he has one more year to serve.

PRESIDENT: Dr. Thomas H. Hay holds over for one more year. I should like to have somebody make the motion first.

DR. L. M. WARFIELD, Milwaukee: There is a motion before the House, which was seconded, that the secretary be one of the delegates.

PRESIDENT: I was not aware that the motion had received a second.

DR. WARFIELD: Several seconds.

PRESIDENT: What is your motion, if you will please state it again?

DR. L. M. WARFIELD, Milwaukee: I move that the secretary of the State Medical Society be one of the delegates from this State Society to the American Medical Association.

PRESIDENT: *Ex officio* always a delegate? He will be official delegate, by virtue of his office in the State Society.

DR. WARFIELD: Yes, that is what I mean.

Motion seconded.

PRESIDENT: You have heard the motion, Gentlemen, that the secretary of the State Medical Society be *ex officio* a delegate to the House of Delegates of the American Medical Association. Are there any remarks on this motion?

DR. D. J. HAYES, Milwaukee: For how long chosen, Dr. Warfield?

DR. P. W. LEITZELL, Benton: I rise to a point of order and a word of explanation. If you accept that motion, put it before you accept the amendment. Now when I made my remarks, I did not make those remarks against any secretary. I do not know a man in the house except myself, and I do not know myself very well, but I should like to ask, can we elect our secretary, because he is secretary, *ex officio* as a delegate to the American Medical Association? Can we at this meeting bind the future meetings of the Society? Will it always be agreeable for our secretary to go? That is the point I brought up. I am speaking not so much on the subject, but as a word of explanation. It seemed to be understood that I on my part was objecting to the secretary going as a delegate. The present secretary is as agreeable to me as anybody else, and if he continues as secretary as far as I know he will always be agreeable to me. But can this House of Delegates ratify a by-law or constitution that will change our order of things, without the ratification of the State Society? As a House of Delegates we are only a committee. That is the point I make, and this is a word of explanation as to the point I tried to bring out before.

DR. C. S. SHELDON, Madison: We shall have to amend the by-laws. We are mixed up. We have had the motion, and had it put in a different form. The first motion was seconded, and reads differently. It is probably down there, if it is read. You are accepting a second motion before the first is voted on.

PRESIDENT: I beg your pardon, there is only one motion before the House.

DR. SHELDON: There was an amendment to that motion.

PRESIDENT: No, there was no amendment, it was simply remarks.

DR. G. WINDESHEIM, Kenosha: I made an amendment, but it was not seconded.

PRESIDENT: There is no amendment before the House of Delegates. Are there any further remarks on this motion?

DR. P. W. LEITZELL, Benton: I support the amendment.

PRESIDENT: The amendment did not receive a second. The original motion is before the House.

DR. LEITZELL: I am seconding the amendment.

PRESIDENT: You cannot do that after the discussion on the motion. Dr. Windesheim, do you wish to amend that motion of Dr. Warfield's?

DR. G. WINDESHEIM, Kenosha: Mr. President, I should like to amend the motion of Dr. Warfield to the effect that the State Society will pay the expenses of the secretary as one of the delegates to the American Medical Association.

PRESIDENT: Is there any second to the motion?

DR. AXTELL: I support that motion.

PRESIDENT: The amendment to the motion is that the State Society pay the expenses of the secretary to the meeting of the American Medical Association. Are there any remarks on this amendment?

DR. M. R. WILKINSON, Oconomowoc: Mr. President, I rise to ask for information upon a point. Does not the constitution and by-laws provide for a certain manner of electing delegates? Is this proper and legal?

PRESIDENT: There is no provision in the constitution as far as we can determine at this time for electing the delegates.

DR. W. H. CANTWELL, Shawano: Dr. Windesheim's amendment was to amend the constitution so as to allow the secretary to be a permanent member of the committee. This amendment has to do with paying his expenses. That was not what the brother was interested in. The intention here, before you make this man a permanent member of this committee, is to amend your by-laws. That is what the brother was trying to get at.

DR. P. W. LEITZELL, Benton: That is what I supported. I did not support the second part of the amendment.

DR. G. WINDESHEIM, Kenosha: Mr. President, it is possible that my remarks were misunderstood. We cannot amend the constitution and by-laws without first

bringing the matter before the House of Delegates in written form, and laying it over until the next day for action. So I certainly did not mean to say, if I made use of any such expression, that we should amend the constitution and by-laws to that effect by a vote of the House of Delegates now. There is no necessity for any such action. But if it is the sense of the members that the constitution and by-laws should be changed to that effect, it would be well to postpone the election of these delegates until tomorrow.

PRESIDENT: Are there any further remarks on the amendment?

DR. W. H. CANTWELL, Shawano: I do not see how you can go on and elect the secretary as a permanent member of that committee without first changing the by-laws. According to the way we have always done, we elect one man each year. If this motion is carried now, you change that so that one member is entirely eliminated from the election, and that it seems to me would necessitate changing the by-laws before you could do so. For that reason I figure that this motion is out of order.

DR. AXTELL: I would like a ruling from the Chair on the constitutionality of this motion.

PRESIDENT: My opinion was expressed in the beginning of this discussion. I believe that if we want to make the secretary *ex officio* a member of the House of Delegates we have got to amend the by-laws, or make provision for it in a by-law. That is my opinion. We have *ex officio* members of the council, the president and secretary are such *ex officio* members of the council; the president and secretary are also *ex officio* members of this House of Delegates. That is, however, by constitutional provision. If I should have to rule on the question I would say that you cannot elect the secretary as a delegate *ex officio* permanently without making provision for it in the constitution.

DR. L. M. WARFIELD, Milwaukee: Mr. President, in order that this discussion may be settled now, I should like to withdraw my motion, and say that it is the sense of the House of Delegates that the secretary of the State Medical Society of Wisconsin be a delegate from the State Medical Society to the American Medical Association.

PRESIDENT: I think that is perfectly proper. You can do that. You can elect him every 3 years, the same as you elect any other delegate.

DR. WARFIELD: This only puts the House of Delegates on record for future action, as the House of Delegates meets year by year, that there has been a House of Delegates which has gone on record as favoring the secretary's being a delegate to the American Medical Association year by year and year by year, and if any House of Delegates hereafter cares to have it otherwise, they may do so. And if any House of Delegates cares to amend the by-laws, making it compulsory, they can do so.

DR. W. H. CANTWELL, Shawano: After the making of that statement I move that the secretary be elected for the next 3 years.

DR. WARFIELD: As soon as we have this matter settled, I have something which I wish to present.

PRESIDENT: Now you state that you wish to withdraw your motion.

DR. WARFIELD: I wish to withdraw my motion, and substitute the expression that I used, that it is the sense of the House of Delegates.

DR. LEITZELL: Has the support of that motion been withdrawn?

DR. AXTELL: I will withdraw my support.

DR. LEITZELL: I move you that our present secretary be elected delegate to the American Medical Association meeting.

Motion seconded.

PRESIDENT: The withdrawal of your motion, Dr. Warfield, withdraws the other?

DR. WARFIELD: I simply wish to have that on record, that is all, Mr. President, that it is the sense of this Society that the secretary be a delegate always. I wish to have him elected now, I wish to have him elected always; but for the future guidance of the Society, that is all.

PRESIDENT: Has your motion received a second, Doctor?

DR. LEITZELL: Yes, sir.

PRESIDENT: The motion before the House is that the secretary be elected a delegate to the American Medical Association. For how many years, Doctor?

DR. LEITZELL: For 3 years. Do we elect him for 1 year, 2 years or 3 years—whichever is legal?

PRESIDENT: You can elect one for 2 years and one for 3 years, as I understand it.

DR. LEITZELL: For the 3 years.

PRESIDENT: There is one delegate now holds for one year, the delegate still holding over. You elect one for 2 years, and one for 3 years.

DR. LEITZELL: I move that you elect him for 3 years, and being the first name, that he be chairman.

PRESIDENT: The motion is made that the secretary be elected delegate for 3 years.

Motion seconded.

DR. AXTELL: I would like to ask a question. For how long is our present secretary elected?

SECRETARY SLEYSTER: For a year.

DR. AXTELL: Can we elect a delegate and not name him? Can we elect an office as delegate to the American Medical Association, or must we elect a man?

DR. LEITZELL: Mr. Chairman, I cannot pronounce your secretary's name, or I would mention his name. We all know I looked at him and pointed at him. Our present secretary is the man I am speaking of, not any office, I am speaking of the present secretary. How do you pronounce his name?

PRESIDENT: Sleyster.

DR. AXTELL: It was not my intention to criticize the brother, but it was my intention to get this thing as nearly clear as possible. I personally do not see how we can elect the secretary, and if we elect Dr. Sleyster we elect him not as secretary, but as a member of the Association. And it was Dr. Warfield's motion, as I understood it, to make it the sense of this body of delegates, and to express the sense of this body of delegates that

we have the *secretary* as delegate to the American Medical Association. Was that not it, Doctor?

DR. WARFIELD: That is it.

DR. M. R. WILKINSON, Oconomowoc: Even if we elect the secretary a delegate, suppose he served for 3 years. Some man would have to serve for 3 years if elected for 3 years as delegate. And if we elect the secretary for one year, whoever came in afterwards would serve for one year only. It does not make any difference if the present secretary is elected as delegate and we elect another secretary for the State Society, the next secretary will not be a delegate unless so elected.

PRESIDENT: I understand that the object of this is to provide someone who has experience and who is conversant with the work of the American Medical Association. Now if Dr. Sleyster should not be re-elected as secretary of the State Medical Society next year, he would nevertheless hold over as a delegate for 3 years, because he is a man who has had experience, and whom we want there.

(Calls for the question.)

PRESIDENT: We have heard the motion. All in favor of the motion will signify by saying "aye"; opposed "no."

The motion is carried.

Now, Dr. Warfield, if you want to make that motion you can make it. that it is the sense of this meeting that the secretary be—

DR. WARFIELD: No, we will not make it.

DR. J. F. PEMBER, Janesville: I move you that Dr. Warfield be elected delegate to the American Medical Association for two years.

Motion seconded.

DR. L. M. WARFIELD, Milwaukee: Mr. President, I wish to rise to say that it is practically impossible for me ever to attend the American Medical Association meeting, as long as I am an official of the Milwaukee County Hospital. My superintendent goes to the meeting of the American Medical Association, and the organization of the hospital is such that he expects me to be present there, which would make it absolutely impossible for me to be present at the meeting of the American Medical Association, except possibly for a day. So, under the circumstances, I should like to have my name withdrawn, not that I would not care to serve, but it would be absolutely out of the question.

I should like to nominate for delegate to the American Medical Association, Dr. H. M. Brown, of Milwaukee, to serve for 2 years.

DR. J. F. PEMBER, Janesville: I second the nomination.

PRESIDENT: The nomination of Dr. H. M. Brown is made and seconded. Are there any further nominations for delegate to serve for two years.

DR. D. J. HAYES, Milwaukee: Mr. President, I nominate Dr. Pember. I think he always attends the meeting of the American Medical Association. He is a member, and well qualified in every way.

DR. J. F. PEMBER, Janesville: Mr. President, I could not accept the nomination under any circumstances.

PRESIDENT: Are there any further nominations?

DR. E. L. BOOTHBY, Hammond; Mr. President, I want to place in nomination Dr. Hoyt E. Dearholt, the next president of this Society. If you are going to send your secretary down there, send the president to look after him. He will be the next president of this Society, and will represent the Society better than anyone else could.

Nomination seconded.

PRESIDENT: Are there further nominations?

DR. HOYT E. DEARHOLT, Milwaukee: Mr. Chairman, I do not want to be put in the position of declining service, or anything of that sort, but it seems to me that it might be better to have someone who is perhaps more representative of the general membership, rather than to send another officer of the Society to the meeting of the American Medical Association.

PRESIDENT: Do you wish to withdraw your name?

DR. DEARHOLT: I would prefer to if it is consented to.

DR. BOOTHBY: He is more representative of the Society than anyone else is.

PRESIDENT: I think that we better proceed to the election of the delegate for 2 years by ballot.

DR. W. H. CANTWELL, Shawano: I move that the secretary be instructed to cast the ballot of the Society for Dr. H. M. Brown as delegate to the American Medical Association.

Motion seconded.

PRESIDENT: We cannot do that. There are two nominations before the House.

DR. CANTWELL: Did not Dr. Dearholt withdraw?

DR. DEARHOLT: I should like to withdraw.

DR. BOOTHBY: He did not withdraw, and he is not going to.

DR. DEARHOLT: I should like to withdraw my name.

DR. BOOTHBY: You cannot do it.

PRESIDENT: If there is only one nomination before the House there is no objection to having the secretary cast the ballot for the Society.

DR. H. A. GILBERT, Madison: Are the other nominations withdrawn?

DR. DEARHOLT: Yes.

PRESIDENT: All but Dr. H. M. Brown. I will entertain your motion, Doctor.

The motion is made and seconded that the rules be suspended and that the secretary be instructed to cast the ballot of the Society for the election of Dr. H. M. Brown, of Milwaukee, as delegate to the American Medical Association for two years. The motion has received a second. Are there any remarks on this motion? If not, all in favor of the motion will signify it by saying "aye"; opposed "no."

Motion unanimously carried.

PRESIDENT: The motion is carried, and the secretary will cast the ballot of the Society for Dr. Brown.

SECRETARY SLEYSTER: The ballot is cast.

DR. G. WINDESHEIM, Kenosha: In this discussion about electing delegates, mention has been made several times about the constitution and by-laws of the State Society. The constitution and by-laws of the State Society does not lay down any rules whatever in regard to the selection of delegates to the American Medical

Association. If the members of the House of Delegates would like to have an article in the constitution and by-laws regulating the selection of these delegates, someone should bring in an amendment or an article and present it in writing today, so that it can be acted on tomorrow, or it should be presented in writing tomorrow so that it can be acted on on Friday morning. The constitution and by-laws as they have been revised by the committee have not yet been published. They were not published last year, and they were not published this year simply because there were just some such questions hanging fire, which the committee thought that possibly the House of Delegates might want to have incorporated in the constitution and by-laws before they were published.

PRESIDENT: We must elect two alternates to be selected from the House of Delegates.

SECRETARY SLEYSTER: There are 3 to be elected, Mr. President, because I was serving as an alternate.

PRESIDENT: There are 3 alternates, Dr. Sleyster informs me that he has been serving as an alternate, so we shall have to elect 3 alternates. Will somebody please make the nominations for alternates?

DR. G. E. PETERSON, Waukesha: I should like to place in nomination the name of Dr. M. R. Wilkinson, for alternate.

PRESIDENT: Dr. Wilkinson is nominated. Are there any further nominations?

DR. D. J. HAYES, Milwaukee: I nominate Dr. T. W. Nuzum, of Janesville, for alternate.

DR. E. H. TOWNSEND, New Lisbon: I should like to place in nomination Dr. W. E. Bannen, of La Crosse.

PRESIDENT: Are there any further nominations?

DR. HOSMER, Ashland: I nominate Dr. J. M. Dodd, of Ashland.

PRESIDENT: Are there any further nominations?

DR. D. J. HAYES, Milwaukee: We have the requisite number now.

PRESIDENT: We have four now. Are there further nominations? If not, we will proceed to elect the alternates.

DR. J. M. DODD, Ashland: I should like to withdraw my name from the list of nominations, so that there would be just three to be elected. It would facilitate the work a great deal.

DR. G. WINDESHEIM, Kenosha: I understood your statement to be that two alternates would be elected for the term of 2 years.

Now if the delegates are selected for the term of 3 years, one for 3 years, one for 2 years and one for one year, and then after that one for 3 years, it seems to me that the alternates should be selected in the same way.

DR. C. S. SHELDON, Madison: Of course it is necessary to do that.

PRESIDENT: Elect one alternate at this time for one year, one for two years, and one for three years, and then elect one every three years.

DR. WINDESHEIM: One alternate is the alternate for Dr. T. H. Hay, of Stevens point, which is Dr. Rock Sleyster, of Waupun; Dr. Edward Evans, of La Crosse, is the alternate of Dr. J. F. Pember, of Janesville; and Dr. M. E. Corbett, of Oshkosh, is the alternate of Dr. H. A. Levings, of Milwaukee. Now it needs an alternate for Dr. Sleyster, one for Dr. Horace M. Brown and also an alternate for Dr. Hay, in place of Dr. Sleyster, since he has been selected as delegate and is no more the alternate.

PRESIDENT: We must elect 3 alternates, one for one year, one for two years, and one for three years.

SECRETARY SLEYSTER: Mr. President, if the three men nominated are elected to serve for 1, 2 and 3 years, in the order in which they were nominated, it would simplify matters.

PRESIDENT: That would be perfectly proper. The first nominee was Dr. Wilkinson, the second Dr. Nuzum, and the third Dr. Bannen. If we elect these three in the order they were nominated, they are elected for 3, 2 and 1 year respectively. Will somebody please make a motion.

DR. P. W. LEITZELL, Benton: I move you that we suspend the rules, and that the secretary be instructed to cast the ballot of the House of Delegates for the three persons named for 3, 2 and 1 year respectively.

Motion put and carried.

PRESIDENT: The motion is carried and Dr. Wilkinson is declared elected as alternate for 3 years, Dr. Nuzum for 2 years, and Dr. Bannen for 1 year.

The next order of business is the election of councilors for the 11th and 12th districts, to succeed Dr. J. M. Dodd, of Ashland, and Dr. Hoyt E. Dearholt, of Milwaukee. I should like to hear a motion for the election of a successor to Dr. J. M. Dodd, councilor of the 11th district.

DR. H. A. GILBERT, Madison: I propose Dr. Dodd's name for re-election as councilor of the 11th district.

Nomination seconded.

PRESIDENT: Are there further nominations?

DR. D. J. HAYES, Milwaukee: I move that the nominations be declared closed.

PRESIDENT: Will somebody make a motion to suspend the rules, because really this ought to be an election by ballot, according to the constitution.

DR. HAYES: I move that the secretary cast the ballot of the Association for Dr. Dodd.

DR. L. M. WARFIELD, Milwaukee: I second the motion.

PRESIDENT: Your motion is what, Dr. Hayes?

DR. HAYES: I moved that the rules be suspended and that Dr. J. M. Dodd be elected councilor of the 11th district.

DR. WARFIELD: I second the motion.

Motion put and carried.

PRESIDENT: We now come to the election of a successor for Dr. Hoyt E. Dearholt as councilor of the 12th district.

DR. G. W. CROSBY, Sheboygan: I should like to nominate Dr. J. P. McMahon, of Milwaukee.

Nomination seconded.

DR. J. P. MCMAHON, Milwaukee: Mr. President, I will have to ask to be excused from accepting the councilorship. While I am not a delegate and therefore have no voice to the proceedings of the House I would suggest that Dr. Dearholt be continued as councilor. His continuance in that capacity need not and does not

interfere with the duties which will devolve upon him as president during the ensuing year. Practically all of the recent presidents have been members of the Council during their presidential incumbency.

PRESIDENT: Do you withdraw your name?

DR. J. P. MCMAHON: I do.

DR. E. H. TOWNSEND, New Lisbon: I nominate Dr. Hayes.

PRESIDENT: Dr. McMahon has been nominated, Dr. Dearholt has been nominated, and Dr. Hayes has been nominated. Are there any further nominations?

DR. DEARHOLT: I should like to withdraw my name.

PRESIDENT: Dr. Dearholt has withdrawn. That leaves two candidates for the councilship, Dr. McMahon and Dr. Hayes. Are there any further nominations? If not, the House of Delegates will have to proceed to a ballot for the election of councilor of the 12th district. I appoint as tellers Drs. Zierath and Peterson.

DR. T. J. REDELINGS, Marinette: Mr. President, the question has been raised as to whether a councilor is a member of the House of Delegates, with the right to vote.

DR. C. S. SHELDON, Madison: Of course he is.

DR. REDELINGS: I would like a ruling from the Chair, for specific reasons.

DR. SHELDON: Always have been.

DR. REDELINGS: I should like the ruling announced, because the question has been raised.

DR. G. WINDESHEIM, Kenosha: One of the articles of our constitution and by-laws says that the officers of the State Society and councilors are *ex officio* members of the House of Delegates.

DR. REDELINGS: They have the right to vote?

PRESIDENT: Oh, yes, always.

(The ballot was taken.)

DR. W. F. ZIERATH, Sheboygan: Mr. President, the number of ballots cast, 36; necessary for a choice, 19. Dr. McMahon received 16, Dr. Dearholt 3, and Dr. Hayes 17. No election.

DR. P. W. LEITZELL, Benton: Mr. President, was Dr. Dearholt's name withdrawn?

PRESIDENT: That does not alter the ballot.

DR. LEITZELL: I beg pardon, I asked the Chair for information.

PRESIDENT: Dr. Dearholt's name was withdrawn. Then there was only 33 ballots cast for candidates.

DR. ZIERATH: The meeting did not understand that, so that does not qualify them.

PRESIDENT: I think we had better proceed to another ballot, Gentlemen. That does not give any one man a majority.

DR. ZIERATH: Let it be understood that there are only two candidates, Dr. McMahon and Mr. Hayes.

PRESIDENT: I want to say, Gentlemen, that only delegates, councilors and state officers are permitted to vote in this election. Dr. Dearholt is not a candidate, better not waste your ballots voting for him; he is not in nomination.

DR. P. W. LEITZELL, Benton: If you are making that rule, possibly you better have everybody sign his ballot, so you know that it is a delegate.

PRESIDENT: I do not think that is necessary, Doctor. I do not think anybody in the Society will vote unless he has a right to, or that anybody in the room will vote unless he has the right to.

DR. LEITZELL: Mr. Chairman, I think you ought to decide on that matter. If Dr. Dearholt was not a candidate, Dr. Hayes was elected.

DR. ZIERATH: It was not the understanding of the men. They thought they were voting for Dr. Dearholt, too.

(The ballot was taken.)

DR. ZIERATH: Mr. President, the number of votes cast, 35; necessary to a choice, 18. Dr. McMahon received 14 votes, and Dr. Hayes 21 votes.

PRESIDENT: Dr. Hayes is elected councilor for the 12th district.

Dr. Dwight wishes to make an announcement to the House of Delegates.

DR. C. G. DWIGHT, Madison: I do not wish to take up much of your time, as it is late, but I do want to bring up something that I think is in the minds of a good many of the members of the State Society, and that is, that the time has come when, if all of the members of the State Society are to get benefit of our meetings, we shall have to make some divisions. Our meetings are so large, and there are so many subjects to cover, that the situation is coming to the same point it did with the American Medical Association. A man who comes from Superior, for instance, to hear a paper, has to wait a day or two for that one paper. He is a busy man, and does not want to stay at the meeting two or three days to hear one particular paper. And if the sessions of our state meeting could be divided into sections, this could be avoided in great measure. The surgeons are askng for a section, and I think the internists are asking for a section, and I know that the eye, ear, nose and throat men are asking for a section. I am speaking from the standpoint of the eye, ear, nose and throat men. We have been having our meetings at the same time as the state meeting, but we have kind of slipped in at the back door as the Milwaukee Oto-Ophthalmic Society, and this year the committee did not see fit to mix in. I think it is time that a decision in this matter should be made in the House of Delegates. There are several other states considering this matter, and in fact we are behind the other states in not having this very plan. For instance, today is our opening day, and if we could devote this day to the general work and have tomorrow, for instance, given over to the different sections, the men who are interested in a particular line of medicine would go to those different sections. For instance, Dr. Gilbert goes to the meeting of the American Medical Association and goes to his particular section, because he has particular work that he is doing, and he does not have to stay there for several hours and listen to things along lines on which he is not working. And when one is devoting his time to a particular line, it is a very great advantage. The general practitioner will get his work just the same. He may have his section devoted to general practice, just the same as it is done now. But let the different sections have an opportunity to get greater benefit from the meetings. For the second day of the meeting those

divisions could be made. There could be a division on surgery, on medicine, on eye, ear, nose and throat, or on any other particular branch of medicine, and the men interested in that particular branch could attend the meeting. In this way you would bring to the state meeting on that particular day, I believe, at least 200 men who do not feel that they can spend the time to come down here and wait. I believe it would improve the State meeting more than you have any idea until it is tried. Illinois, New York, Pennsylvania, Ohio, and I think in all about 20 states are working under this system at their state meetings now, and it is only a matter of time when it will be a great benefit to the organization. I am giving this to you now to think about. There are many things which I could bring up as reasons why this should be done, and when it comes up for discussion before the House of Delegates, I shall have something more to say, unless the conditions are favorable. I believe there are several men who can come before you from the different specialties, and tell you why it should be done. There are a good many men who are missing from the meeting now, and who do not come because of the fact that there is nothing in their particular line that they can devote the time to. I thank you, Mr. President.

PRESIDENT: The next order of business is the election of committees and delegates. The first is the Committee on Public Policy and Legislation.

DR. H. A. GILBERT, Madison: Mr. Chairman, recognizing the fact that the different committees and members of committees and delegates are more effective and more efficient if they have had experience in serving on these different committees, and also to expedite matters, I move you that the rules be suspended, and that the secretary be instructed to cast the ballot of the House of Delegates for the different committees as delegates and members of committees, as they stand in the hand book. That would reach from A to G.

Motion seconded.

DR. L. M. WARFIELD, Milwaukee: In this connection, is there not another committee that we are to elect, the *ad interim* committee that was appointed by the President?

PRESIDENT: Yes.

DR. WARFIELD: That would be included in this motion of yours, Dr. Gilbert?

DR. GILBERT: If that is the way to do it.

PRESIDENT: I think you had better not do that, Dr. Warfield, because that committee has not been created, and ought to be created, because they may go to some expenditure, and probably will have to go to some expenditure in their work.

DR. WARFIELD: I merely asked the question.

PRESIDENT: And the committee ought to be created and appointed, and then if necessary, the council can make available to them funds for their work. But the motion that has been made is proper, and that is that all of the committees from A to G as printed in the hand book, the Committee on Public Policy and Legislation, the Committee on Medical Education, delegate to National Legislative Council, delegate to Council on Medical Education, Member of Committee on Health and Public Instruction, to succeed J. M. Beffel, Committee on Publication, and Committee on Medical Defense; all these committees be re-elected. That of course means the re-election of Dr. John M. Beffel to succeed himself. Does anybody wish to make any remarks with respect to this motion?

(Calls for the question.)

DR. J. P. MCMAHON, Milwaukee: Has the motion been seconded?

PRESIDENT: Yes, it was seconded.

DR. J. P. MCMAHON: If it is open to discussion I should like to make the following remarks: At each annual session for the last 3 or 4 years, I have resigned the chairmanship of the Committee on Public Policy and Legislation, and each time the resignation has not been accepted. For different reasons I feel compelled again to place the resignation before you. The first reason is that I have done as much of this kind of work as my time permits. The second reason is that I have served in this capacity as long as any one man ought to be asked to serve. And a further and controlling reason—the reason which actuated me in withdrawing my name as a nominee for the councilor of the 12th district a short time ago—is that, in my opinion, the more members there are actively interested in the affairs and the activities of the Society, the better the organization and the greater the accomplishments. I believe and have repeatedly advised that it is a mistake to have any man serve in 2 or 3 official positions at the same time. The managing editorship of the Journal is positively the only responsibility which I shall assume for the Society during the ensuing year.

In this same connection I wish to state that a couple of years since, when we expected a very active legislative session, the membership of the Committee on Public Policy and Legislation was, with the advice and consent of the Council, augmented, on the theory that it would be well to have the committee have representatives from the different sections of the state. When the chairman of the council came to appointing the committee, he was unable to find men in different sections of the state who could serve and conveniently attend meetings, as a result of which all the members were selected from Madison and Milwaukee. Our experience has been that a large committee cannot accomplish any more than a small committee, and it is much more laborious to get a large committee together and more difficult to secure quick action which is often necessary. I would, therefore, suggest that the committee be reduced to conform to by-law requirements, viz.: 3 members, and that someone else be nominated as chairman.

DR. J. M. DODD, Ashland: Without reflecting in any way upon this Committee on Public Policy and Legislation, I wish to say that, while it does not appear whether any attempt will be made to make any change in the present medical practice act, it is possible that there may be some effort made in this direction, and if so, the composition of this committee is an extremely important matter, and it seems to me that the selection of this committee should be left to the incoming president, who

would give a good deal of thought and consideration to the selection of the men composing the committee. I also believe that a smaller committee would be more effective. And for that reason I should oppose the motion before the House.

PRESIDENT: Are there any further remarks?

SECRETARY SLEYSTER: Mr. President, I agree with the remarks which Dr. Dodd has just made. If the social insurance matter is brought before the next legislature, this committee is going to be the most important committee that the State Medical Society will have, and it needs to be a small working committee, which can be gotten together, and needs to be very carefully chosen. I therefore think that the suggestion of Dr. Dodd of leaving the selection of this committee to the incoming president is a very wise one, and this motion should be amended so as to leave out this committee, and reduce it to 3 members, leaving it to the president to appoint that committee.

DR. L. M. WARFIELD, Milwaukee: If that is possible under our constitution and by-laws, I will move to amend the motion of Dr. Gilbert to leave it that the committees starting from B, to G, be re-elected, according to the plan proposed, and that the original committee of 3 on Public Policy and Legislation be appointed by the incoming president.

Motion seconded.

PRESIDENT: You have heard the amendment, Gentlemen. Is there any discussion on the amendment? Any remarks on the amendment? If not, all in favor of the amendment will signify it by saying "aye"; opposed, "no."

Motion unanimously carried.

PRESIDENT: The amendment is carried. Now on the original motion, the original motion as amended is that the committees from B to G be re-elected. Are there any further remarks on this original motion? If not, all in favor of the motion will signify it by saying "aye"; opposed, "no."

Motion carried unanimously.

PRESIDENT: The motion is carried. Now if somebody will make a motion in regard to this Committee on Social Insurance, or Committee on Health Insurance. Will someone make a motion creating that committee?

DR. W. H. CANTWELL, Shawano: Mr. Chairman, we still have this committee that was not elected just now.

PRESIDENT: The incoming president is to appoint that committee, according to the amendment of the motion. Dr. Cantwell. The incoming president will select that committee—a committee of three.

DR. J. P. MCMAHON, Milwaukee: May I suggest, Mr. President, that it is likely that the creation of a new standing committee will require an amendment to the by-laws.

SECRETARY SLEYSTER: It need not be a standing committee; it may be a special committee.

PRESIDENT: This is a special committee, it is not necessarily a standing committee. When this proposition is disposed of, the committee goes out of existence.

DR. L. M. WARFIELD, Milwaukee: I move you that the Special Committee on Compulsory Health Insurance be appointed by the President, the committee to consist of five.

PRESIDENT: There were 7 on the original committee. I will read the committee as oppointed by your president. It is Dr. Dearholt, Dr. Lemon, Dr. Grey, Dr. Beffel, Dr. Windesheim, Dr. Zierath and Dr. Wilkinson, seven.

DR. L. M. WARFIELD, Milwaukee: I move you that the House of Delegates authorize the president to appoint the Committee on Compulsory Health Insurance, the committee being the same committee as has had the *ad interim* appointment.

DR. REDELINGS: I second the motion.

PRESIDENT: You have heard the motion made and seconded that the president appoint the Committee on Health Insurance. I should like to have embodied in that motion, Dr. Warfield, that this committee will assume the legislative duties incident to the work. I think that would be better.

DR. WARFIELD: Would they not do that anyhow as a committee?

PRESIDENT: There might be some friction between the Committee on Public Policy and Legislation and this Compulsory Health Insurance Committee, when it comes to appearing before the Legislature on this proposition.

DR. WARFIELD: I would just as soon incorporate that, but I would suppose it would be included.

PRESIDENT: I think it would be well to incorporate that in the motion.

DR. WARFIELD: I should like to incorporate that then.

PRESIDENT: That this special committee will take care of the problem when it comes before the Legislature.

DR. WARFIELD: Then I wish to add to my motion that this special committee shall have as its special feature the conduction of the discussion, and the appearance before the Legislature, upon Compulsory Health Insurance.

DR. REDELINGS: I accept the modification.

DR. HOYT E. DEARHOLT, Milwaukee: I assume it may be taken for granted unless we be otherwise instructed, that the motion does not necessarily carry the same organization of the committee, that is, that I shall continue as chairman of the committee.

PRESIDENT: No, not necessarily.

Motion put and carried.

DR. C. G. DWIGHT, Madison: I bespeak for the members of this committee who have the work of legislation in hand, the hearty co-operation of all members of the House of Delegates and of the physicians of the state. It is a mighty discouraging proposition for one or two or three doctors to go down to the Legislature and attempt to get legislation through. They ought to feel that they have the support of every doctor in the state. We do not give sufficient attention to the matters of legislation when we are not in active session. The proper thing to do is to give your attention to legislation right now, when you are electing your legislators. The doctors in the various communities can have a good deal to say about who is to be sent to Madison to represent us, and it behooves us all to get busy and do what we can to send the proper kind of men to this legislature. And

then when we attempt to get any legislation through, let us put our shoulder to the wheel, and count every one of us.

PRESIDENT: A motion to adjourn is in order, Gentlemen.

DR. W. S. ZIERATH, Sheboygan: There is just one thing more. This Committee on Compulsory Health Insurance will need some money, and I move that they be permitted to draw on the treasurer to the amount of $150.

PRESIDENT: That will have to be done by the council, Doctor, the House of Delegates has not the right to expend any money.

DR. G. WINDESHEIM, Kenosha: Mr. President, the House of Delegates must make an appropriation. The council can accept it or not.

DR. REDELINGS: Is there any second to Dr. Zierath's motion?

PRESIDENT: Please state your motion again.

DR. ZIERATH: That the Committee on Compulsory Health Insurance be permitted to draw on the treasurer for the expenses of that committee to the extent of not more than $150. They may need only $75, but they may need $150, and that makes a limit.

PRESIDENT: Does that motion receive a second.

Motion seconded.

Motion put and unanimously carried.

PRESIDENT: A motion to adjourn is now in order.

DR. T. J. REDELINGS: I move that the House of Delegates adjourn until 8:15 tomorrow morning.

Motion seconded and carried.

Adjournment to 8:15 A. M., Oct. 5, 1916.

SESSION, THURSDAY, OCTOBER 5, 1916, 8:15 A. M.

Meeting called to order by the President.

PRESIDENT: The roll call of delegates will be dispensed with this morning.

The minutes of the previous meeting were read and approved.

PRESIDENT: If there are no additions or corrections to the minutes as read, they will stand approved as read.

In the past it has been customary at times to read the minutes of the House of Delegates, or an abstract or synopsis of those minutes, before the general meeting. Dr. Windesheim suggested this morning that he thought that practice ought to be resumed. I personally think that it would be a very splendid thing to do. Many of the physicians in the state come here and attend the scientific meetings, and go back home, knowing absolutely nothing of what occurred in the House of Delegates or in the council. If, as Dr. Windesheim suggests, just simply the minutes of the meeting, or an abstract of the minutes of the meeting of the House of Delegates were read to the general session, it would take only a few minutes time, and I think would be a splendid thing and inform the members of the State Medical Society of what is really being done. There is nothing secret about the work of the House of Delegates. Of course we all read it afterwards in the Journal, but I think it would probably be well if they know something about it while they are here.

DR. G. WINDESHEIM, Kenosha: I do not mean all of the minutes. I would not like for the members in the general assembly to know how we quarrel here and fight over every little thing. What I mean is an abstract of the actions in the House of Delegates from day to day.

PRESIDENT: What is the sense of the delegates with regard to this matter?

DR. D. J. HAYES, Milwaukee: I move that the secretary read the report before the general session.

DR. T. J. REDELINGS, Marinette: I second that motion, if the motion contemplates an abstract.

PRESIDENT: That is just an abstract. Are there any remarks on this motion?

DR. T. J. REDELINGS, Marinette: I would like to suggest that the report be read at a time when you have the largest attendance. I really think this is a vital point. Someone has said that the members of our Society read these reports. I regret to say that many do not read these reports. Many of our members do not review the Journal closely. The larger the number you reach with your reports, the more you will interest. You cannot tell when you will reach a man.

PRESIDENT: Are there further remarks on the motion?

DR. G. WINDESHEIM, Kenosha: Mr. President, in order to make this thing a little more complete I should like to make an amendment to the motion that it also include an abstract of the actions of the council, that is, the main points, and a résumé of the reports of the various committees, especially the report of the secretary and the report of the treasurer, and possibly the Publication Committee. But especially the report of the secretary as read before the House here. It seems to me that that report really belongs to the general assembly as much as to the House of Delegates. And an abstract of the report of the treasurer, showing the money received, and the money expended, no details about it. This would bring before the minds of the members the idea that something is being done. Otherwise they believe that we belong to the dead ones. They do not know that there is work done here.

PRESIDENT: Do you accept the amendment, Dr. Hayes?

DR. HAYES: I accept the amendment.

PRESIDENT: If there is no objection, the amendment will be accepted. Are there any further remarks on this motion? If not, all in favor of the motion as amended by Dr. Windesheim will please signify by saying "aye"; opposed, "no."

Motion carried.

PRESIDENT: Is the Auditing Committee ready to report?

DR. REDELINGS: I think that Dr. Cairns is chairman of that committee, and he is not here, and we did not complete our deliberations yesterday after the morning session.

PRESIDENT: Is there anything left over to be taken up at this time?

SECRETARY SLEYSTER: The report of the Nominating Committee.

PRESIDENT: Is the Nominating Committee ready to report?

SECRETARY SLEYSTER: I have their report. It was handed in to me, and I will read it. The Nominating Committee brings in the following nominations for president, 1st vice-president, 2nd vice-president, and 3d vice-president. The committee nominates Dr. Hoyt E. Dearholt, of Milwaukee, for president; Dr. Joseph L. Smith, of Wausau, for 1st vice-president; Dr. I. G. Babcock, of Cumberland, for 2nd vice-president, and Dr. J. F. Pember, of Janesville, for 3rd vice-president. The report is signed by Dr. E. H. Townsend, secretary of the committee.

PRESIDENT: You have heard the report of the Committee on Nominations, Gentlemen. What is your pleasure?

DR. T. J. REDELDINGS, Marinette: I move that the report be accepted.

Motion seconded.

DR. REDELINGS: Is it necessary to do any balloting?

PRESIDENT: No, the acceptance of the report.

DR. REDELINGS: Accept this report of the Nominating Committee. And that the committee be commended for its good work, and be discharged.

PRESIDENT: The adoption of the report.

Motion seconded.

Motion put and carried.

PRESIDENT: That virtually elects the nominees to the respective offices. Dr. Dearholt, have you anything to say? I have the pleasure of presenting to you, Gentlemen, the president elect of the State Medical Society. (Applause.)

DR. HOYT E. DEARHOLT, Milwaukee: Mr. President and Gentlemen. Some months ago a candidate for the nomination for the presidency said that he was ready to accept the nomination if the people of the country were in an heroic mood. You must have been in a social mood. I feel that this nomination does not come as recognition of me as an individual nearly so much as it is a recognition of the work that I am connected with. I do not appreciate any the less the personal compliment and honor, because I feel that it is smybolic of a desire on the part of the medical profession to put its social obligations and responsibilities above all others. It is in that way that I feel, as I say, that my nomination is much more a triumph for social medicine, than it is for me personally.

I am overwhelmed with the responsibilities, and if a year of hard work will be any repayment at all for this very great honor, I shall try to make such repayment. (Applause.)

SECRETARY SLEYSTER read the report of the Committee on Provision for the Feeble-Minded, presented by Dr. Edward Evans of La Crosse, as follows:

THE COMMITTEE ON PROVISION FOR THE FEEBLE-MINDED.

Impressed with the need of more accurate knowledge concerning the prevalence of feeble-mindedness, of more intelligent recognition by the community of its obligation to the mental cripple on one side and to society on the other, and of far more adequate provision for the care of the feeble-minded and for the protection of society from the menace of present conditions, the Milwaukee Central Council of Social Agencies on Sept. 29, 1915, appointed a committee on provision of better care for the feeble-minded. This committee, realizing that Milwaukee's problem is the problem of the entire state and that it could be solved only by state legislation, soon enlarged its activities and began the promotion of a state-wide campaign for the securing of needed legislation and for the gathering of information with which to support the demand for new laws.

The committee is composed largely of representatives of institutions, departments and organizations whose work for social betterment has brought those engaged in it into close touch with the problem of feeble-mindedness. The membership of the committee is as follows: Mrs. George A. Chamberlain, director of the Juvenile Protective Association, chairman; Miss Evelyn Johnson, secretary of the Central Council of Social Agencies, secretary; Dr. Ida Schell, physician at the Wisconsin Industrial School for Girls; Carroll G. Pearse, president of the Milwaukee Normal School; Miss Mary J. Berry, superintendent of the Wisconsin Industrial School for Girls; Dr. A. W. Rogers, chief of the psychopathic department of the Juvenile Protective Association; Miss Helen Adler, assistant in the psychopathic department of the J. P. A.; Dr. George P. Barth, chief of the medical inspection department of the Milwaukee public schools; Miss Carrie Levy, supervisor of exceptional children in the Milwaukee public schools; Miss Susan Johnston, instructor in manual training of exceptional children; Mrs. Louise F. Brand, of the Wisconsin Anti-Tuberculosis Association; Miss Louise Drury, of the Juvenile Protective Association; Mrs. Katherine Van Wyck, secretary of the Associated Charities; Mrs. Rossiter Lines, representing the federated women's clubs; Dr. H. W. Powers, and Dr. Irene Tomkiewicz of the school medical inspection department; and the Rev. Enno Duemmling of the Lutheran missions.

As the first step in its work, the committee centered its effort on securing a census of known cases of feeble-mindedness in Wisconsin communities where the co-operation of the Associated Charities, school nurses or other social service agencies could be secured. This work is now in progress and the committee feels that the records received thus far justify it in bringing existing conditions to the attention of the State Medical Society, the association of State Charities and Corrections, the Wisconsin Federation of Women's Clubs, the Wisconsin Anti-Tuberculosis Association and other organizations actively engaged in the promotion of the public welfare and in asking these associations for their support in the effort which will be made to secure legislation during the coming winter.

The present situation in Wisconsin, briefly stated, is as follows:

The population of the state is two and one-half millions and according to conservative estimates based on scientific research, the feeble-minded population, includ-

ing idiots, imbeciles, and most dangerous of all, the morons, is over 8,000. According to the last report of the State Board of Control, the population in the Chippewa Falls institution on Dec. 1, 1914, was 1,102 and the board had information of between 300 and 400 persons who ought at that time to have been cared for in an institution. Contracts have just been let for the new institution at Union Grove which will have an ultimate capacity of 1,476 patients, 660 feeble-minded and 816 epileptics but which under the plan of annual appropriations provided for will be at least twenty years in the building. In the meantime patients who ought to be in an institution for the feeble-minded are inmates of other institutions where they do not belong and where they cannot be given proper care, or they are at large, a menace to present society and to future generations through their tendency to the reproduction of their own kind.

The committee's study of the problem of the feeble-minded has impressed it with the following definite and vital truths:

First—That 75 per cent of mental defect is due to hereditary transmission.

Second—That mental defect must no longer be regarded as an individual misfortune, but as a destructive social force, the mother of crime, pauperism and degeneracy.

Third—That the safe-guarding of the feeble-minded in their homes and their special education in the public schools must have our very careful attention until we can get enough institutional accommodation.

Fourth—That a good institution is where they all belong because both home and school are handicapped by their presence and neither one of them can furnish the highly specialized training and the happy surroundings of a modern institution.

Fifth—That segregation is the great secret of eliminating feeble-mindedness.

Ultimately the committee feels that the commitment law, by which the feeble-minded are now classified with the insane, should be amended but in the face of more imperative needs it has been decided to concentrate effort on legislation looking more immediately to an extension of state supervision of its mental defectives. The legislature will, therefore, be asked for:

First—A law providing for the appointment of a state examiner qualified to diagnose feeble-mindedness and working as a member of the state department of public education. Such an official would make examinations of retarded children in all the schools.

Second—A law by which appropriations commensurate with the provision now made for the deaf and blind would also be made for the education of the feeble-minded in special classes in the public schools.

Third—A law to expedite the building of Union Grove by increased appropriations for a shorter period of time than the twenty year plan under which the State Board of Control is now authorized to proceed.

Realizing that the discovery and the scientific treatment of the feeble-minded are largely medical problems, the committee hopes for the indorsement and the active co-operation of the physicians of Wisconsin in the work which it has undertaken. It is having the assistance of the National Committee on Provision for the Feeble-Minded in an educational campaign which will be held throughout the state with the aid of women's clubs in the various cities.

PRESIDENT: This communication was presented by Dr. Edward Evans on behalf of a committee of social workers, and his desire was that the House of Delegates pass a resolution endorsing this work. Will some member make a motion to that effect?

DR. I. G. BABCOCK, Cumberland: I move you, Mr. President, that we endorse this work.

Motion seconded.

PRESIDENT: Are there any remarks on the motion? The motion is that the House of Delegates endorse the movement. I should like to say that if we do endorse this, that we, as a body, could push the matter with our legislators, and try and see if we cannot make something out of this for the good of society. I believe that we, as a body, could do a whole lot in the way of securing desired legislation.

SECRETARY SLEYSTER: I think, Mr. President, that possibly if the motion included instructions to our Legislative Committee to give their aid to securing the passage of this legislation, it would help the matter out.

PRESIDENT: That might be embodied in the motion.

DR. HOYT E. DEARHOLT, Milwaukee: I should like to suggest furthermore that what the committee seems to be in need of now is evidence as to the number of cases. The physicians of the state must have a very good acquaintanceship with the feeble-minded of the state, and I know it would be very helpful to the committee if they could be assisted through the co-operation of the doctors in securing their census of these cases.

PRESIDENT: Are there any further remarks on the motion? If not, all in favor of the motion will signify it by saying "aye"; opposed, "no."

Motion carried.

PRESIDENT: Is there any new business to be introduced this morning?

DR. L. M. WARFIELD, Milwaukee: I have a resolution which I should like to offer to the Society, as follows:

Resolved, That the Wisconsin State Medical Society approve and urge the legislation pending in the United States Congress for the creation of a Federal Department of Health, with a secretary, a member of the Cabinet at its head, and

Resolved, That a copy of this resolution be sent to all the members of Congress from the state of Wisconsin.

Motion seconded.

PRESIDENT: You have heard the resolution, Gentlemen, what is your pleasure? Does anybody wish to speak on this resolution?

DR. G. WINDESHEIM, Kenosha: Mr. President, I think that is according to the recommendation that I made to the Society. As a delegate to the National Legislative Council, it appeared to me, from the discussions that I heard there, that the Department of Public Health in connection with the National Government, is an abso-

lute necessity. There is at the present time no set rules for any state, or for any locality, to go by. If a Department of Public Health, such as they have been trying to create for some time, was established, our public health work could be very much improved, and for that reason I think such a resolution might possibly induce other state societies to pass similar resolutions, and eventually we would get this much desired innovation in the National Government.

PRESIDENT: Is there any further discussion on this resolution? If not, all in favor of the resolution will signify it by saying "aye"; opposed, "no."

Resolution carried.

PRESIDENT: The motion is carried and the resolution is passed.

Is there further new business?

DR. L. M. WARFIELD, Milwaukee: Mr. President, in line with the suggestion made yesterday in your Annual Address, with which all present here are, I think, conversant, I should like to move that the plan of sectioning of the State Medical Society of Wisconsin at its annual meeting, as laid out by you in your address, be approved, and henceforth carried out.

Motion seconded.

PRESIDENT: Are there any remarks on this motion? This is a very important matter, Gentleman, and one that has been discussed in previous meetings of the House of Delegates, and in fact has been discussed every year, I think, for a number of years past, and ought not to be hastily gone over, or hastily attempted. So if there is any discussion on the subject, we want to have it now.

DR. EDWARD EVANS, La Crosse: Mr. Chairman, will you allow me, as an outsider, to say a word about this? I am not a delegate.

PRESIDENT: You are councilor.

DR. EVANS: I have had difficulty in getting up a state program on two occasions. You either must offend a lot of good men, or you have difficulty in arranging your program the way we are now doing, holding sessions of the whole profession at every meeting; and a very much better program, I am sure, can be gotten up, and much greater interest created throughout the whole profession, if this section proposition is put into effect. And as one who has had to do more than once with programs, and knowing the difficulties that arise in trying to build up a good program, where so many good men can be gotten to furnish papers and so few can be selected. I think there are some 18 papers this year. We could have very much better meetings, I am sure, if the scheme as outlined in your address yesterday, was put into effect.

DR. C. G. DWIGHT, Madison: I think that hits the right string. If the matter of arranging the program was handled right here in this House of Delegates, as is the case in the American Medical Association, I think it would be a better plan. Dr. Evans has had his experience this year, and perhaps has had it before, and if that was a part of the work of the House of Delegates, and the men appointed by the House of Delegates to arrange these different sections, instead of leaving the whole matter in the hands of one program committee, I think you will get better results. And in selecting the different men you will get men interested in the different branches of the specialties. If the House of Delegates makes those selections I think it will be a wiser choice right through than by leaving it in the hands of one big program committee. There might not be on the program committee a man interested in each particular section that wants to do special work.

DR. L. M. WARFIELD, Milwaukee: I must confess that I cannot agree with that proposition at all. We have today in this state a surgical society with an organization; we have today an Oto-ophthalmological society with a good organization. It would not be very difficult to organize the section on internal medicine and include the various subjects that come under internal medicine. It seems to me that it would be far better to let those two societies elect their own secretaries and their own chairmen. Let the president, as heretofore, appoint the chairman of the program committee, and if he cares to do so at the beginning, it probably would be better for him to appoint the chairman and secretary of the section on internal medicine, as that at present has no organization. The nose, eye and throat men at the same time in their meeting elect their own chairman and their own secretary for the ensuing year. The president could then appoint the chairman of the program committee, as I understand the plan, and there would be a continuous succession and no friction. Those societies could much better handle their own work than to have it taken up here in the House of Delegates.

DR. C. G. DWIGHT: That is Addisonian English. That is putting exactly what I mean in concrete form. I am a member of the Oto-Ophthalmic Society, and I know they would want that part and that control, but there should be an emanation from here, the appointment by the president. It means the same thing, only it is more concise.

PRESIDENT: Is there further discussion of this motion?

DR. FRANZ PFISTER, Milwaukee: I am sorry that I was not present when Dr. Jermain made his suggestions in regard to these changes. As a member of the Oto-Ophthalmological State Society, I can only say that we tried to arrange for a program for a meeting at the same time of the meeting of this State Society, and we were given to understand that we were not badly wanted, inasmuch as we distracted attention and split up the meeting, as it were. This is the reason why the eye, ear, nose and throat men have not a single paper here, and have not any arrangements for this meeting. In order to avoid those things, and bring about a harmonious working of the different specialties, as well as the general practical subjects, it might not be necessary to be quite as radical as has been suggested. I think the remedy, or a test at least for a year or so, could be applied in the form of a change in the program committee. The program committee, to be appointed either by the House of Delegates or by the President, or whoever is delegated for that purpose, to consist of one man from each of those branches. I would leave out the special

societies as they exist now. The constitution of the Oto-Ophthalmic Society conflicts with the constitution of the State Medical Society. The program committee can provide for meetings of the sections and also for special subjects of general interest in the general meeting. I believe that if the program committee should consist of members of those different branches, those members could automatically be chairman of those meetings. We would not have to change anything in our constitution or by-laws; about all we would have to do would be to have a practical working arrangement. I think that might be tried for a year or two to see whether it would work out.

Dr. G. Windesheim, Kenosha: This Society cannot change to a society of sections without first making an amendment to the constitution and by-laws. If the society considered making this change, it would be necessary to present today, in writing, an amendment to the constitution and by-laws, and act on it tomorrow. In the past I personally have been very much opposed to dividing the Society into sections, because it takes away from the general practitioner the facilities of coming here and learning something about the various specialties. The general practitioner comes here and does not see anything new in the way of diagnosis or treatment of eye, ear, nose and throat diseases, because the specialists in that line are not represented on the program. He comes here and does not get any benefit in relation to any mental or nervous diseases, because the mental and nervous disease men are not on the program. The eye, ear, nose and throat men we know can not come to a meeting where internal medicine is discussed, and learn anything; they usually know all about it beforehand.

Dr. S. S. Hall, Ripon: I do not believe that is true. I believe you are mistaken.

Dr. G. Windesheim: I do not know; possibly I am mistaken. The Committee on Revision of Constitution have felt that some such thing would come before the House, and that probably a change will have to be made and incorporated into the revised constitution and by-laws. But it cannot be done now unless it is done immediately—cannot be done this year. I think for the past three years the program committee have looked into the matter carefully, and have arranged the programs according to the desires of the doctors and others. You will notice the program this year, the first part of it is all surgery, the next part is internal medicine, in relation to the heart chiefly, and the last end of it, with the exception of one paper on the application of laboratory methods, is in the line of pediatrics. It seems to me that if this plan of program were followed for the next year or so, or until a change in the constitution and by-laws can be made, and the society be divided into sections—giving the eye, ear, nose and throat men a half a day, the surgeons a half a day or a day, and the internists some time, and the pediatrists some time, that that would solve the question.

President: Dr. Windesheim knows more about the constitution than anybody else, and I do not wish to dispute what he has stated in regard to the constitution and by-laws, but I want to ask him how he would interpret this section or article of the constitution and by-laws. Article 7 of the constitution and by-laws, in regard to sections in district societies, says: The House of Delegates may provide for a division of the scientific work of the society into appropriate sections. That is already provided for in the constitution. All you have to do is simply put it up to the House of Delegates to endorse the movement, and appoint your program committees, and go ahead and arrange your program. Is there any further discussion of this subject?

Dr. L. M. Warfield, Milwaukee: Mr. President, suppose you outline very succinctly your plan. I do not think the plan is thoroughly understood by the men here, and if you will outline very carefully your plan of dividing it into sections, with the inclusive portions under these various sections and when they ought to meet, I think that will clear up the situation.

President: The plan I suggested to the Society was one which I learned of in a meeting at Detroit last June. There were about 35 presidents of various state societies present at a meeting there, at which ways and means of improving our meetings were discussed. All seemed to feel that our state meetings as conducted in the past were losing ground; that we were losing in interest. The same situation holds in every state. Surgical societies and medical societies, and Oto-Ophthalmological societies are being formed, and they are splitting up every state society, and minimizing the good that the state society is able to do. The plan suggested to you yesterday afternoon is one which is in operation in Pennsylvania, in Illinois, in Michigan, in Ohio, and I think in a large number of other states; I do not know exactly how many.

Dr. C. G. Dwight, Madison: Twenty.

President: About twenty states already have adopted this plan. I spoke to the president of the Illinois State Medical Society only a week ago. They have four sections. He stated that they would never think of going back to the old time general meeting. The president of the State Society of Pennsylvania expressed the same idea, that they would never go back to the old way of meeting.

The difficulty in the past has been in discussing this subject that the members were afraid that the general session would be done away with, and that we would go to work on the plan of the American Medical Association, where each section holds its meetings somewhere in a building all by itself. That is not the plan suggested, and that is not the plan in operation in any state. They have general sessions in every state that I know of. In Pennsylvania, for instance, they have a general session during the entire first day of the meeting, a general session in which the entire medical society gets together, and they have symposiums on subjects of interest to the entire medical profession. They have their addresses in surgery and medicine, and they have outsiders come in and give papers on special subjects, of interest to everybody. Then on the second day they have their sectional meetings. There are no general meetings on this day. The surgical section meets and has a distinctly surgical program. The eye, ear, nose and throat section meets and has a distinctly eye, ear, nose and throat program.

The internal section meets. And in some states they have a section on preventive and social medicine. Then you can split the third day if you wish. Some states have split the third day and made half of the third day general sessions, and half special sections; but you can devote the entire third day again to general sessions. That would give you two days of general sessions, and one day of special sessions. I feel that this plan will widen and broaden the scope of the Medical Society to a very marked degree, and give the specialists a chance to get together and discuss their specialties. It will also give the general practitioner a chance to go into the specialty meetings and derive the benefit that he is looking for there. It will give the specialist who will come to our meetings a chance to get in touch with the general medical profession, which he needs very badly, I think as badly as we need the special work, I mean, we general men.

Now the only evidence of a division into sections is that each section should have the right to elect their own chairman and their own secretary and conduct their business, their scientific meeting, that is all there is to it.

Dr. Warfield: Tell us your plan. Outline absolutely and definitely your plan.

President: That is my plan.

Dr. Warfield: You did not tell what your plan is, you have not told us yet.

President: The plan is simply to have this House of Delegates instruct—I think that is all that is necessary, instruct the president, the program committee, to arrange for a meeting of this kind at the next session.

Dr. Warfield: Tell us what it is. What I want you to say is that there ought to be three sections, defining the sections.

President: I thought we all understood that.

Dr. Warfield: No, that is what I want to get.

President: On the second day there shall be three sectional meetings, a surgical section to include general surgery, genito-urinary surgery, orthopedic surgery, obstetrics, gynecology, and roentgenology. A medical section to include general medicine, pediatrics, neurology, psychiatry, dermatology and syphilis, materia medica and therapeutics, and preventive and social medicine. The Oto-Ophthalmological section to include eye, ear, nose and throat, and I have placed in there in my plan, stomatology. Those are the only sections, and those are the sections that are to meet on the second day. Each one of those sections to elect their own chairman and secretary, and the chairman of the section to be *ex officio* a member of the program committee, so that he can assist in arranging the program according to the ideas of his section.

Dr. Warfield: We understand that the first day is a general session of the whole Society?

President: All day, yes.

Dr. Warfield: The third day is a general session of the whole Society?

President: Yes.

Dr. Warfield: The second day is a special section of those three great groups?

President: Yes.

Dr. Warfield: Including the various branches that come under those groups?

President: Yes.

Dr. W. F. Zierath, Sheboygan: May I amend Dr. Warfield's resolution, and say that in preparing that first program along sectional lines, that the president of the State Medical Society be empowered to appoint the first president and secretary of each section. It will then be organized and can go to work.

Dr. Warfield: I do not accept the amendment.

President: I think Dr. Warfield suggested that the president appoint the chairman of the medical section, because there is no organization of that kind in existence.

Dr. Zierath: I did not hear that. I withdraw my amendment.

President: There is an Oto-Ophthalmological Association, with a president and secretary. Why not accept that president as chairman of the section. And the same is true of the surgical association.

Secretary Sleyster: Mr. President, I have been heartily in favor of this proposition, and brought the matter before the House of Delegates at the Oshkosh meeting, and urged its adoption very strongly. There is just one point of detail on which I differ with Dr. Jermain, and that is, in turning the entire second day over to sectional work. That is our day of biggest attendance, and I think the general sessions should still be favored. The State Medical Society has grown to proportions where I think it is a great shame for men to come here in the morning of the second day and leave on the evening of the second day, absolutely ignoring the proceedings of the first and third days. As a rule we haven't a corporal's guard for the third day's program. I think the time has come when our program should be extended, and men should come here and stay at least two days, if they do not take in the entire session. I would favor leaving our program as it is, that is, the first day has the opening exercises and the initial program, the second day, general sessions, as we now have it, with the Address in Surgery in the morning, and the Address in Medicine in the afternoon, and devote the entire third day to sectional meetings. I think by doing this we will extend our program and keep our men at the meeting longer. It will be a much better arrangement than to sacrifice our best day to the sections.

Dr. T. J. Redelings, Marinette: It seems useless to prolong the discussion. There are other viewpoints than thus far expressed. If we should have any object in this plan, it would be to increase the general attendance. Now instead of accepting Dr. Sleyster's suggestion, which has good points, I would say, put your medical address on the first day of your general session, and the surgical address on the third day. There are men who come for those special addresses. If we can get them in so that you can hold them for both ends of the meeting, you will increase your general attendance at the sessions. This other thing is also true, Gentlemen, that if your program is sufficiently attractive, you will hold your attendance from the beginning to the end of the meeting.

(Calls for the question.)

PRESIDENT: I think, of course, that those are matters of detail which can be worked out by the program committee, and which ought to be left to the program committee. If they fail in their program, it is up to them to correct any mistakes they have made. There is a question before the House. Is there further discussion on this question?

DR. G. WINDESHEIM, Kenosha: I should just like to say that I fully approve of Dr. Sleyster's plan.

PRESIDENT: That can be worked out.

SECRETARY SLEYSTER: If you will pardon me, the thing I want to suggest is that I did not want the action of the House of Delegates binding on the program committe, to devote any special time to sectional work.

PRESIDENT: My plan was simply to suggest how it might be arranged. That can be altered at any time, in the wisdom of the program committee. There is a motion before the House. All in favor of the motion will signify it by saying "aye"; opposed, "no."

Motion unanimously carried.

DR. W. F. ZIERATH, Sheboygan: Before we adjourn I have a brief resolution which I desire to offer.

Be it resolved, By the House of Delegates of the State Medical Society of Wisconsin, that we commend the principle of compulsory health insurance, and that we pledge our support in the enactment of that principle into law.

Resolution seconded.

PRESIDENT: You have heard the resolution, Gentlemen. Is there any discussion of this resolution? If not, all in favor will say "aye"; opposed, "no."

Resolution unanimously carried.

On motion the House of Delegates adjourned to meet Friday morning, October 6, 1916, 8:15 A. M.

MORNING SESSION, OCTOBER 6, 1916. 8:15 A. M.

Meeting called to order by the President.

The roll call was dispensed with.

The minutes of the last meeting were read and approved as read.

PRESIDENT: Is the Auditing Committee ready to report?

DR. J. M. DODD, Ashland: Mr. Chairman, the Auditing Committee has not met in a body, but they have gone over the report individually and found it correct. I do not know that the report has been signed as yet, but the Auditing Committee will report that the accounts of the Treasurer have been audited and found correct.

PRESIDENT: You have heard the report of the Auditing Committee. Gentlemen, what is your pleasure?

DR. P. W. LEITZELL, Benton: I move that we adopt the report.

Motion seconded.

Motion put and carried.

PRESIDENT: What are you going to do with regard to the next meeting place. I think that matter ought to be decided this morning by the House of Delegates. We have not as yet decided on a meeting place.

DR. H. A. GILBERT, Madison: Have there been any invitations, Mr. President?

SECRETARY SLEYSTER: There is an invitation from Milwaukee.

DR. S. S. HALL, Ripon: Mr. President, I move that the next meeting be held in Milwaukee.

Motion seconded.

PRESIDENT: Are there any other suggestions? If not, you have heard the motion, and all in favor of holding the next meeting in Milwaukee will say "aye"; opposed, "no."

Motion unanimously carried.

PRESIDENT: There is another matter that should be attended to here, and usually is, unless you wish to delegate it to the President, and that is the selection of a list of eligibles for appointment to the State Board of Medical Examiners. The House of Delegates is supposed to make out a list of twelve names and present it to the Governor, from which list he is supposed to select the members of the State Board of Medical Examiners. What is your pleasure with regard to that matter?

DR. H. A. GILBERT, Madison: I move you that it devolve upon the President to give the Governor the list of twelve names from which to choose.

DR. P. W. LEITZELL, Benton: I think as our president is in authority until the new president is duly authorized to accept the robe of authority, that if the brother will specify our present President I will support the motion.

DR. GILBERT: It would depend upon who is president at the time that necessity arises, and I do not wish to name the party. If Dr. Jermain is president at that time, then let him make out the list, and if Dr. Dearholt is president, let him make out the list.

DR. LEITZELL: Whoever is president at that time.

DR. GILBERT: At that time.

DR. LEITZELL: I will support the motion.

DR. J. S. KEECH, Racine: Why not have the council report twelve names to the present President. That would be a good way to select the twelve men. Let them report the names, because they come from all over the state and can easily select men for that purpose.

PRESIDENT: You mean have the council do it?

DR. KEECH: The various councilors of the state. They might and could recommend to the President the names of the twelve men to be sent in to the Governor.

DR. H. A. GILBERT, Madison: Do they have a meeting? They do not meet but once a year, at the time of the meeting of the Society.

PRESIDENT: The difficulty is there, that if you do it that way, the possibility is you will not have any list. There is a motion made and seconded that the President supply the list of names of twelve men to the Governor.

DR. GILBERT: The then acting President, whoever he may be.

PRESIDENT: All those in favor of the motion will say "aye"; opposed, "no."

Motion unanimously carried.

PRESIDENT: Is there any other new business to come before the House of Delegates?

SECRETARY SLEYSTER: There is one matter which was brought up by Dr. Riordan, of Berlin, yesterday, and I should like to bring it to the attention of the House of Delegates once more, as it is up to the House to act on, and that is the matter of transferring Green Lake, Waushara and Adams from the 9th district to the 6th district. They are so located that it is very difficult for them to attend the district meetings in the 9th district, but Berlin, Princeton, Green Lake, and the towns in Green Lake County, which make up the majority of the membership, are convenient to the Fox River Valley, and Fond du Lac, Oshkosh and Appleton, and it would be more convenient for them to locate there. The 10th district is so large a district as it is that it would not cripple that district in any way. This is really a matter for the council to decide, is it not, Dr. Windesheim?

DR. G. WINDESHEIM, Kenosha: I am not sure as to that. I think that the House of Delegates will leave it to the council. The council really is the body that does the re-districting.

SECRETARY SLEYSTER: I think, however, that Dr. Riordan is perfectly right in asking for that change. It has never occurred to me that they could attend more conveniently there, but I know that to be the fact.

PRESIDENT: You see that the matter is taken up in the council.

DR. T. J. REDELINGS, Marinette: Mr. President, the Auditing Committee seems to have gotten scattered. Dr. Cairns is not here, but Dr. Dodd and I respectfully wish to submit a majority report accepting the treasurer's account as correct, and we would like to make this suggestion, that the treasurer and secretary correlate their accounts, so that they will cover identically the same period, and the books will balance, as under the present system there is no way of checking up the two accounts against each other. That is all that the Auditing Committee has to report.

DR. S. S. HALL, Ripon: I will state that our fiscal year is from January to January, but we have been in the habit of having the report from the treasurer at the time of the meeting, and of course there is a discrepancy between the treasurer's account and the secretary's account, unless you dig it out from the accounts, which are necessarily the same, because the account of the secretary is sent to me in duplicate, and one of the duplicates is the receipt that I returned to him, and the other is on file in my safe. I always have the secretary's account up to date.

PRESIDENT: Dr. Redelings, Dr. Dodd made a report, and that report was acted upon by the House of Delegates.

DR. REDELINGS: I was requested to make the report.

PRESIDENT: Yes. Is there any further business to come before the House of Delegates this morning, any new business, or anything that you think of, Dr. Sleyster, that has not been attended to?

SECRETARY SLEYSTER: Nothing. We are all cleaned up.

PRESIDENT: If there is no new business to be taken up, a motion to adjourn is in order.

A motion was duly made, seconded and carried that the House of Delegates adjourn.

NEW MEDICAL PROVISIONS FOR HEALTH INSURANCE.

Important advances in plans for organization of medical care under health insurance appear in the pamphlet entitled, "Medical Provisions of the Tentative Draft of an Act for Health Insurance," just published by the American Association for Labor Legislation at its headquarters in New York City. These provisions, in the opinion of the Council of the Medical Society of the State of New York, "safeguard the public interest, the public health and the welfare of the medical profession."

Gains have been made by providing specifically in the new sections of the act for adequate representation of the medical point of view. The physician member of the state commission is supplemented by a state medical advisory board elected by the state medical societies. This board passes upon regulations issued by the Commission effecting medical benefit, and hears and reports upon disputes appealed to the Commission. Medical interests also secure valuable participation in local organizations through the local medical committee, while the foresighted provision for the representation of different groups—health department, general practitioners and specialists—on the committee is assigned to maintain a just balance among the varying medical interests. This committee has the opportunity of discussing local medical regulations before they are put into operation by the directors of the local insurance fund, and also hears any cases of disagreement relating to medical benefit. If it is unable to settle the difficulty, appeal is taken to an arbitration committee composed of representatives of the physicians, of the local health insurance fund, and an impartial chairman.

Careful study of foreign experience pointed out the desirability of separating the functions of certifying an insured person as eligible for benefit and of actually treating him, in order to avoid the embarrassing situation in Germany where a physician acts as plaintiff and defendant at the same time. Therefore, medical officers, not permitted practice under the act, alone, have authority to issue certificates of disability and only if its issuance has been recommended by the attending physician. To assure that high grade men are appointed by the local funds, the bill provides that the medical advisory board, elected by the state medical societies, shall establish the qualifications and that the local medical committee shall have power to veto undesirable appointments. This procedure avoids certain disadvantages of a civil service examination and assures that the medical officer is selected, because of the confidence placed in him by the physicians with whom he will be associated.—*American Assoc. for Labor Legislation.*

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EDITORIALS

TAKE NO CHANCES.

IF, ON RECEIPT OF THIS JOURNAL, YOU HAVE NOT PAID YOUR 1917 DUES, TAKE NO CHANCES—SEND THEM TO YOUR COUNTY SECRETARY WITHOUT DELAY. DUES ARE PAYABLE JAN. 1ST AND ALL MEMBERS DELINQUENT ON JAN. 31ST WILL BE WITHOUT THE PROTECTION OF MEDICAL DEFENSE. YOU CANNOT AFFORD TO TAKE THIS CHANCE!

PARINAUD'S CONJUNCTIVITIS.

The active propaganda carried on by the U. S. Public Health Service in discovering and treating cases of trachoma is known to all. Particularly in Kentucky the number of cases of trachoma were beyond all previous conception of the frightful morbidity. The disease is so serious that a mistake in diagnosis may mean great inconvenience for the patient and cause needless alarm to a neighborhood.

As a matter of fact, mistakes are not infrequently made. A very unusual but well recognized form of inflammation is that known as Parinaud's Conjunctivitis. In Public Health Reports for Dec. 15, 1916, p. 3402, Dr. G. B. Collins describes a typical case of this disease.

The patient, a young woman of exceptional physique and strength, a professional teacher of gymnastics, was referred to the writer when on field duty, from a summer camp, for a troublesome and painful inflammation of the right eye of one week's duration. It was noted that she was rather pale and slightly feverish and restless. Examination of the right eye showed the cornea normal, injection of the bulbar conjunctiva increasing toward the periphery. The conjunctiva of each lid was greatly congested and in each lid, particularly at the nasal side of the upper lid, were noted many granulations. These granulations were particularly marked, too, in the upper retrotarsal fold, where they were crowded close together. The granulations had a peculiar yellowish, semitranslucent appearance, and examination with a loup showed minute white areas on the surface. There was considerable mucoid secretion, but no pus. At one point on the bulbar conjunctiva a minute bright subconjunctival hemorrhage was noted. On close examination a few granulations could also be noted on the epicanthal fold. Acute trachoma was suspected.

In front of the ear on the same side was noted a movable circumscribed swelling, rather soft, quite tender to the touch and evidently an inflamed preauricular lymph gland. The left eye was quite normal.

A collyrium and rest of the eye were prescribed, and the case was observed from time to time for the next four weeks. The first improvement was noted in the swollen lymph gland, which became less tender and much harder, and then began to decrease in size. The systematic symptoms at the same time disappeared. The injection of the con-

junctivæ became less marked and the discomfort left the eye. At the present writing, after four weeks, the granulations can still be noted but are much less marked and the inflammation is practically gone.

This case, he says, is typical of Parinaud's Conjunctivitis, viz., "a monocular acute inflammation of the upper and lower conjunctivæ, with yellowish red granulations especially marked in the retrotarsal folds, some constitutional disturbance, and *swelling and pain in the preauricular* lymph gland of the affected side; the attack usually coming to an end in several weeks and leaving no untoward results. Sometimes the whole parotid region swells; sometimes the lymph glands suppurate."

Verhoff has shown that the disease has a definite histological picture quite distinct from tuberculous conjunctivitis with which it has been confused. Moreover he has demonstrated in the granulations exercised from 12 cases, a minute filamentous organism occurring in irregular masses within focal areas of endothelial phagocytes in various stages of necrosis.

Treatment consists in that usually given for conjunctivitis. The disease gradually recedes after a few weeks. Some think that excision of the granulations hastens recovery, but this procedure is unnecessary.

For diagnosis the most important features are the unilateral character, the constitutional disturbance and the enlargement of the preauricular gland on the corresponding side. This is an exceedingly interesting disease. For the physician who is practising in the country it is well to keep this rather rare disease in mind. Possibly now some who read this will remember cases of tuberculosis (?) or of trachoma (?) which recovered completely in a few weeks.

ANTHRAX.

THE danger of anthrax is ever with us. It is not common, is not usually very severe in humans, but may be a violently fatal malady. Massachusetts, according to Public Health Reports, has recently had quite an epidemic among workers in the tanneries of Winchester and Woburn. There were 25 cases between Feb. 17, 1916, and June 27, 1916. Four deaths occurred. The disease was definitely traced to a shipment of hides which was found later to have come from an infected district.

The spores of anthrax are very resistant to heat, and cold, and drying. When rubbed into an abrasion or wound of any kind they may develop rapidly and produce boils or ulcers which are rather resistant to treatment and which later may lead to fatal septicemia. Recently the Press reported a case of a prominent man in New York who died from anthrax acquired presumably from handling hides.

The disease, although not common, is yet sufficiently common to keep us on the alert for sporadic cases.

The records of the Milwaukee Health Department show no cases of anthrax among all the tanneries in this city for the past year. However, there is no telling when a case or a number of cases may develop. This is one of the numerous instances in which veterinary medicine and human medicine come into such close relationship. It argues for a National Board of Health which will correlate all work in preventive medicine and place it under central control. Disease knows no State boundaries, it should be handled as a national problem.

CABOT FOR A WEEK.

AS an illustration of what a live county medical society can do in educational work for its members the attention of Wisconsin societies is called to the following: The Jackson (Michigan) County Medical Society recently secured the presence of Dr. Richard Cabot of Boston for a week. Every morning during that week Dr. Cabot conducted a Clinic at one of the local hospitals. Each evening there was held a lecture. Many cases were presented, their etiological, pathological, diagnostic features were discussed and their treatment outlined. As a result of this week of study, under a great master, there are going to be better Doctors in Jackson County. We trust some Wisconsin County Society will follow the idea.

EXIT HEROIN.

NO sooner do we become enamoured of a pet notion than some one ruthlessly shatters it. For many years we have had a belief, shared evidently by many, that friend heroin was an excellent sedative for the bronchial tree, quieted cough, slowed and deepened the respiration and was of

great value in many irritative lung conditions. But heroin is a derivative of opium and as such comes under the provisions of the Harrison Law. It is a habit forming drug. Worse than that, so far as we are concerned, it is now pronounced of no value.

Excerpts from the minutes of the Committee on Drug Addiction of the Committee on Social Hygiene of the National Committee on Prisons. It was regularly moved by Dr. Frederick Peterson and seconded by Dr. Samuel W. Lambert that it be resolved that in the opinion of the Committee, the Drug Heroin is of no real value in the practice of medicine, and that its place may be better taken by more efficacious agents that do not menace public welfare.

Resolved that the committee recommend Federal Legislation to prevent the importation, manufacture and sale of Heroin in the United States of America.

(*Signed*) Samuel W. Lambert, M. D.
Frederick Peterson, M. D.
Charles F. Stokes, M. D.
Frederick Tilney, M. D.
Simon Baruch, M. D.
Chairman, Committee on Drug Addiction.
Helen Hartley Jenkins,
Chairman, Committee on Social Hygiene.

Attested:

Joseph D. Sears, *Secretary.*

Good-bye to another superstition. Possibly some will not believe this pronunciamento although signed by prominent men. We really would like to hear now from the pharmacologists who planted this belief in heroin in our minds. And we are wondering how many pet superstitions we are hugging? How long will we be allowed to hold them? What new ones have we recently acquired?

A SUGGESTION.

A county secretary has secured enough neat calendars from one of his insurance agent friends and marked the date of the monthly meetings of the County Medical Society with a blue pencil on each month's calendar, to be presented to each doctor so they can be hung conveniently in his office, a daily reminder of the meetings. This looks like a splendid practical suggestion.

CALUMET ON 1917 HONOR ROLL.

Our hats are off to the Calumet County Medical Society. On Jan. 4th, the energetic Secretary, Dr. MacCollum, sent in dues of 1917 for every member and that means every physician in the county. Now that's what we call "Pep"! And, by the way, your state secretary is proud to say he received his training in that society.

U. S. GOVERNMENT HEALTH ACTIVITIES.

Complete refutation of the claim that the government does not concern itself with the loss from preventable disease is contained in the annual report of the Surgeon General of the Public Health Service submitted to Congress recently. Activities ranging from the prevention and cure of blindness, scientific studies of pellagra, the protection of the health of industrial workers, the prevention of the introduction of typhus fever, investigations of child labor and health insurance, the eradication of communicable diseases and the control of the pollution of navigable streams, are recorded and demonstrate conclusively that the national government is vitally concerned in the health of its citizens.

The most striking achievement of the year relates to pellagra, an affliction which in certain states destroys more lives than tuberculosis. Pellagra is no longer a disease of mystery as the Public Health Service has clearly shown that it is caused by a restricted diet and that it may be prevented and cured by means of a properly balanced ration. The practical application of this knowledge has already resulted in a material reduction in the prevalence of this affliction in all parts of the country and it is confidently believed that in another year even more marked improvement will be observed.

In the eradication of trachoma, a contagious disease of the eyes frequently terminating in blindness, such marked success has been obtained that the methods followed, the converting of private residences into small hospitals and the holding of free open air clinics, have been adopted by the Egyptian government. During the year 1,700 persons were operated upon for the relief of partial or complete blindness, nearly 2,000 received hospital treatment, while more than 19,000 were treated at hospital dispensaries and clinics. When it is realized that large proportion of these people

were doomed to years of suffering terminating in at least partial blindness and that they have been restored to lives of usefulness, in some instances even being taken from county poorhouses where they had been public charges for the greater portion of their days, the importance of this most beneficent work can be imagined. The total cost of this undertaking, including the remodeling of buildings and every expense in connection with the feeding and care of patients, was less than $39,000 for the year.

Increased interest was shown by the government in the health of rural dwellers and Congress has recognized, by making an appropriation for studies in rural sanitation, that the welfare of the country resident is not to be neglected. During the past three years 80,270 homes in 15 different counties of 13 states were visited and complete sanitary surveys made of the premises. In every instance definite recommendations were given to remedy such evils as existed, as for example the pollution of wells, the presence of disease bearing insects and the improper disposal of excreta. In addition, 22,234 homes were revisited, mostly at the request of the owners, in order that the government agents could inspect the improvements instituted. Wherever this method of bringing the lessons of sanitation directly to the rural dweller has been followed a marked reduction has been observed in the prevalence of typhoid fever, hookworm, malaria and other preventable diseases.

Attention has also been given to the health of the children of the nation, more especially to rural school children. Over 32,000 children attending the public schools were examined during the year in order to determine their mental status and the causes and percentage of mental retardation and deficiency. In addition 7,000 physical examinations were completed for the determination of physical defects.

The health of industrial workers has been safeguarded to a greater extent than at any time in the past. Studies have been made of the occupational hazards of steel workers in many of the leading industrial establishments of the country and insanitary and harmful conditions corrected. In the zinc mines of Missouri methods have been adopted which should go far toward eradicating tuberculosis from that district. Investigations of child labor and of health insurance have also been made.

What is regarded as the largest and most important single undertaking of this nature yet inaugurated, the investigation of the pollution of the Ohio river, is still in progress. Surveys of the Atlantic Coast and New England watersheds have, however, been completed and the extent and effects of their pollution is now known; this knowledge demonstrates that Federal legislation to prevent the contamination of water sources is a necessity.

Better provision for the health of travelers has been obtained by safeguarding the water supplies of common carriers and through the promulgation of regulations governing the transportation of persons suffering from communicable diseases.

Energetic efforts have been made to prevent the introduction of all communicable diseases and to control those already with us. Typhus fever has been combated at all points on the Mexican border and disinfection plants established where the clothing and persons of all incoming aliens have been disinfected. At one station alone, El Paso, Texas, 26,000 persons were inspected and treated in such a manner as to insure their freedom from this highly fatal infection.

Plague eradicative measures at New Orleans have been continued. Over 371,000 rodents, the carriers of plague infection, were either trapped or killed and more than 100,000 were carefully examined. No human case of the disease has occurred during the year. Measures for the control of typhoid fever, Rocky Mountain spotted fever, malaria and other infections have been continued as heretofore and the results obtained have been most gratifying.

In only a single field, the medical inspection of immigrants, has the work of the Public Health Service shown any diminution during the year but this has been compensated for by the more thorough examination accorded. 481,270 aliens were examined for the purpose of determining physical and mental defects. Of these, 16,327 were certified for deportation, proportionately a greater number than has ever been recorded. The percentage of mental defectives certified is also steadily increasing.

At the Marine hospitals and relief stations of the service approximately 69,000 beneficiaries received medical or surgical treatment, a number greater by 10,000 than for any previous year.—U. S. P. H. S.

UNIVERSITY EXTENSION SERVICE—COUNTY SOCIETY PROGRAMS FOR 1917.

All component county societies are urged to prepare their scientific programs for 1917 in advance of the new year. In response to frequent requests for aid in securing outside speakers, we have secured the co-operation of the University of Wisconsin and Marquette University in bringing their full-time medical teachers to you for your programs during the coming year. It is hoped that the county societies will make full and frequent use of this exceptional opportunity. On the interest shown in this beginning, hinges, to a large extent, the development of University Extension Medical Teaching as discussed at the recent meeting of the County Secretaries and State Officers Association.

A list of such full-time teachers as are available for this year's programs follows. Arrangements may be made through the Secretary, but are best made by writing the lecturer direct, and as long in advance of the meeting as possible. The lecturer's traveling expenses are to be paid by the county society. No other expense is necessary, but it has been thought that more interest might be evidenced in this work, if the larger societies were to pay an additional small fee such as their finances will permit.

You are again urged to prepare your programs a year in advance and to have them printed. Requests for assistance or for further information will be gladly answered.

ROCK SLEYSTER,
Secretary.

UNIVERSITY OF WISCONSIN.

C. R. Bardeen, Dean.....'The Anatomy of the Heart"

C. H. Bunting, Prof. of Pathology.....
......"Modern Aspects of Diseases of the Blood"

J. A. E. Eyster, Prof. of Physiology.....
.."Methods of Functional Diagnosis of Heart Disease"

A. S. Lovenhart, Prof. of Pharmacology.....
....."Medical Nostrums"

P. M. Dawson, Asst. Prof. of Physiology."Menstruation"

W. J. Meek, Assoc. Prof. of Physiology.....
....."Diseases of Internal Secretion"

H. C. Bradley, Assoc. Prof. of Physiology.....
"Recent Contributions of Physiological Chemistry to Medicine"

P. F. Clark, Assoc. Prof. of Bacteriology.....
....."Infantile Paralysis"

J. S. Evans, Prof. of Clinical Medicine.....
"Modern Ideas of the Invasion of Micro-Organisms"

W. F. Lorenz, Assoc. Prof. of Psychiatry.....
"Diagnosis of Syphilis of Central Nervous System"

W. S. Miller....."Lymphatics of the Lung"

W. D. Stovall, Bacteriologist State Laboratory of Hygiene .....
"Value of Diagnostic Laboratories to the Physician"

MARQUETTE UNIVERSITY.

J. Van de Erve, Prof. of Physiology.
"Social Hygiene"
"Prevention versus Prescription"
"The Newer Physiology Applied"
"The Newer Physiology of the Stomach"
"Pharmacodynamics and Empiricism"
"Group Practice the Next Scientific Step in Medical Advance"
"Eugenics"
"The Glands of Internal Secretion"

Daniel Hopkinson, Prof. of Clinical Pathology.
"Immunity Diagnostic Tests"
"False Interpretation of Laboratory Findings"

F. A. McJunken, Prof. of Pathology.
"The Origin of the White Blood Cells and their Transportation through the Blood Stream"

B. F. McGrath, Prof. of Surgical Pathology.
"Diverticulitis"—with lantern slide illustrations.
"Cancer of Prostate"—with lantern slide illustrations.
"A Modern Method of Teaching Junior Surgery."

Miss Agness Murray, Social Service Department.
"The Dispensary Idea"
"The Development of Dispensary Work"
"Social Service and the Medical Profession"
"Hospital Social Service Work in Milwaukee"
"The Social Worker in the Dispensary"

Chester J. Farmer, Prof. of Physiological Chemistry.
E. H. Wood, Physiological Chemistry.
E. F. Barta, Clinical Pathology.
H. C. Tracy, Anatomy.
I. E. Wallin, Anatomy.
Clarence L. Turner, Biology.
C. D. Partridge, Bacteriology.
Miss Alice Peterson, Dietetics.

CORRESPONDENCE

To the Editor:

On page 200 of the November "Journal" it is stated that since 1913 there have been reported in Wisconsin only three cases of ophthalmia neonatorum. It has been my misfortune to have to report three cases in the last two months with about the same outcome, i. e., one child lost the sight of one eye.

Two cases showed Gram negative diplococci with positive history on the part of both male parents. The third case was probably due to stophylococcus aureus as the smear showed only a few stophylococci, the pus was of the characteristically bright golden color, and the condition promptly subsided under treatment.

The three cases occurred in the practices of two competent obstetricians, and both assured me that proper prophylaxis had been exercised.

I happen also to know of a fourth case, which I did not see, and which received no treatment for the condition as far as I know. The mother left the state with her baby on the tenth day after its birth.

Here in one small community we have in two months, 33⅓% more of this disease than has been reported from the entire state in three years. I fully realize that this is an unusual prevalence and yet does it seem possible that all cases have been reported?

Merrill, Wis. L. J. FRIEND.

To the Editor:

Here is a list of the Columbia Staff together with such extracts from the Directors' minutes as go to show the plan of organization of the staff. The distinguishing feature is the attempt to link up the laboratories (investigation laboratories) with the clinical side, and this is done or sought to be done by making the research laboratories as much an integral part of the Hospital as the Medical and Surgical wards. Of course the plan presupposes the intelligent and friendly co-operation of the Heads of Clinical Departments with the Head of the Laboratory Department, and then it follows that research work will not be blocked in the wards as it so commonly is. H. V. O.

STAFF OF COLUMBIA HOSPITAL, MILWAUKEE.

MEDICINE—Head—Dr. H. V. Ogden.
Associates—Drs. R. C. Brown, A. W. Gray, J. D. Madison, P. H. McGovern, A. J. Patek, L. M. Warfield.

SURGERY—Head—Dr. H. A. Sifton.
Associates—Drs. G. V. I. Brown, C. A. Evans, F. L. Gaenslen, R. H. Ivy, W. L. Lecron, J. L. Yates.

OBSTETRICS—Head—Dr. E. Copeland.
Associates—Drs. G. A. Carhart, A. T. Holbrook, A. J. Puls, P. F. Rogers.

LABORATORIES—Head—

OPHTHALMOLOGY—Head—Dr. N. M. Black.
Associates—Drs. P. H. Dernehl, C. Zimmermann.

LARYNGOLOGY—Head—Dr. H. B. Hitz.
Associates—Drs. W. E. Grove, A. C. Kissling.

DERMATOLOGY—Head—Dr. O. H. Foerster.
Associates—

EXECUTIVE STAFF—
Dr. H. V. Ogden, Chief of Staff.
Dr. H. A. Sifton.
Dr. E. Copeland.
Dr. O. H. Foerster.

The following extracts have been made from those parts of the Minutes of the Directors' meetings, concerned with the Medical Staff:

"1. *General Duties.* The Medical Staff shall have charge of the free ward patients; shall, on medical matters, act in an advisory capacity to the Directors, and, to the utmost, shall endeavor to promote the efficiency, and reputation of the Hospital.

"2. *Departments.* The Staff shall consist of the following Departments, and such others as the Directors may establish:

Department of Medicine.
Department of Surgery.
Department of Obstetrics.
Department of Laboratories.
Department of Ophthalmology.
Department of Dermatology.
Department of Laryngology.

"There shall be a responsible Head to each Department. He shall have as many Associates and Assistants as may be deemed necessary; he shall be accountable for the work of his department; and he shall aim to establish helpful and harmonious relations between his own and all other Departments.

"The Head of the Department of Laboratories shall have general charge of all scientific investigation and research work; he shall foster and stimulate such work, both among members of the staff, and among other medical men; he shall freely advise and aid in the conduct and management of the clinical laboratories; he shall be allowed one-half of his time for original work; and, he shall be eligible for such positions as Pathologist, Bacteriologist, Chemist, etc.

"The Pathologist, Bacterologist, Chemist, Radiographer, and analogous officers shall be responsible to the Head of the Department of Laboratories.

"3. *Executive Staff.* The Heads of the Departments of Medicine, Surgery, Obstetrics, and Laboratories, together with the Head of one other Department as chosen by them, shall form an Executive Staff. The Executive Staff, representing the full Medical Staff, shall attend to all matters of ordinary of routine business that may arise, and shall meet often enough properly to transact such business.

"One member of the Executive Staff shall be Chief of Staff.

"4. *Chief of Staff.* The Chief of Staff shall preside at all meetings of the Medical Staff, and of the Executive Staff; he shall represent them in all communications to or with the Directors; and he shall, upon the written request of two members of the Executive Staff, or upon the written request of six members of the Medical Staff, call a special meeting of those bodies respectively.

"5. *Appointments.* All appointments to the Medical Staff shall be for a period not to exceed one year, but reappointment is assured to all whose work and behaviour are satisfactory to the Directors."

Then follow details, as to appointments, which are of no general interest.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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2nd Dist., G. Windesheim - - Kenosha

TERM EXPIRES 1918
3rd Dist., F. T. Nye - - - - Beloit
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1919
5th Dist., W. F. Zierath - Sheboygan
6th Dist., H. W. Abraham - - Appleton

TERM EXPIRES 1920
7th Dist., Edward Evans - La Crosse
8th Dist., T. J. Redelings - Marinette

TERM EXPIRES 1921
9th Dist., T. H. HAY, - Stevens Point
10th Dist., R. U. Cairns - - River Falls

TERM EXPIRES 1922
11th Dist., J. M. Dodd - - Ashland
12th Dist., D. J. Hayes - - Milwaukee

Delegates to American Medical Association

H. M. BROWN, Milwaukee

ROCK SLEYSTER,, Waupun

T. H. HAY, Stevens Point

Alternates

W. E. BANNEN, La Crosse

T. W. NUZUM, Janesville

M. R. WILKINSON, Oconomowoc

Committee on Public Policy and Legislation

EDWARD QUICK, Milwaukee, Chairman

J. P. McMAHON, Milwaukee

L. H. PRINCE, Madison

Committee on Medical Defense

G. E. SEAMAN, Milwaukee, Chairman

S. S. HALL, Ripon

A. J. PATEK, Milwaukee

Committee on Health and Public Instruction

W. F. ZIERATH, Shoboygan

J. M. BEFFEL, Milwaukee

EDWARD EVANS, La Crosse

Program Committee

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	C. J. Smiles, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	E. L. Bolton, Chilton	C. L. R. McCollum, Forest Junction.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	Frank Drake, Mendota	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. F. Eames, Egg Harbor	T. C. Proctor, Sturgeon Bay.
Douglas	D. R. Searle, Superior	L. A. Porter, Superior.
Dunn-Pepin	A. F. Heising, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	H. F. Derge, Eau Claire	L. H. Flynn, Eau Claire.
Fond du Lac	G. B. McKnight, Fond du Lac	H. C. Werner, Fond du Lac.
Grant	N. E. McBeath, Livingston	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	A. A. Busse, Jefferson	W. A. Engsberg, Lake Mills.
Juneau	Brand Starnes, Mauston	A. T. Gregory, Elroy.
Kenosha	C. R. Caughey, Kenosha	J. F. Hastings, Kenosha.
La Crosse	G. W. Lueck, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hinbenthal, Belmont	H. O. Shockley, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo.
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	W. A. Green, Wausau	F. H. Frey, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	Luella E. Axtell, Marinette.
Milwaukee	P. F. Rogers, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	L. G. Sheurich, Tomah	Spencer D. Beebe, Sparta.
Oconto	J. B. Atwood, Oconto	T. C. Clarke, Oconto.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	G. A. Ritchie, Appleton	M. E. Rideout, Appleton.
Ozaukee	E. E. Coerper, Fredonia	C. E. Balkwill, Grafton.
Pierce	Martin Oyen, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	S. C. Buchan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otto B. Bock, Sheboygan	Arthur Kuauf, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	J. J. Powell, Galesville.
Vernon	John Schee, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	H. A. Peters, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	Burton Clark, Oshkosh	H. W. Morgenroth, Oshkosh.
Wood	J. R. Vedder, Marshfield	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

ASHLAND-BAYFIELD-IRON COUNTY

At the annual meeting of the Ashland-Bayfield-Iron County Medical Society, held at Ashland on December 20th, the following officers were elected for the ensuing year: president, Dr. C. J. Smiles; vice-president, Dr. H. A. Sincock; secretary-treasurer, Dr. Otto Braun. The outgoing president, Dr. W. T. O'Brien, tendered the members a banquet. Dr. Rock Sleyster of Waupun was present, and gave an interesting talk on medical society matters.

COLUMBIA COUNTY.

The Columbia County Medical Society held its annual meeting in the City Hall at Portage, on December 13, 1916. The minutes of the last meeting as well as the secretary's and treasurer's report were read and approved. Dr. Bentley, our delegate, is severely ill and no report of the transactions of the House of Delegates was therefore read. Dr. Chandler was appointed to purchase flowers for Dr. Bentley, and at the same time to express the sympathy of the Society. A committee consisting of Drs. A. J. Batty, A. C. DeNevue and W. J. Thomson was appointed to revise the old fee bill and make a new schedule. Just as soon as this is done a special meeting of the society will be called to which every physician in the county will be invited for discussion of the same.

The secretary read a paper on "The Present Status of Social Insurance," which was well discussed. The election of officers for the ensuing year resulted as follows: president, Dr. O. O. Force, Pardeeville; vice-president, Dr. Jos. Chandler, Pardeeville; secretary-treasurer, Dr. A. F. Schmeling, Columbus; delegate, Dr. A. C. DeNeven, Wyocena. alternate, Dr. O. O. Force, Pardeeville; censor for three years, Dr. A. J. Batty, Portage.

A. F. Schmeling, M. D., *Secretary.*

DANE COUNTY MEDICAL SOCIETY

Dane County Medical Society held its annual smoker-banquet, on December 13, at the University Club, Madison, and elected officers for the coming year. Dr. Frank Drake, Mendota, was named president; vice-president, Dr. B. W. Shaw, Waunakee; secretary-treasurer, Dr. L. H. Prince, Madison; delegates, Dr. H. A. Gilbert, Madison and Dr. W. F. Lorenz, Mendota.

DUNN-PEPIN COUNTY.

Dunn-Pepin County held its annual meeting at the Hotel Royal, Menomonie, on December 14, 1916.

EAU CLAIRE COUNTY

A banquet meeting of the Eau Claire County Medical Society was held at the Galloway Hotel on November 27th. At this regular monthly gathering occurred the election of officers, the following having been chosen: president, Dr. H. F. Derge; vice-president, Dr. H. C. Midelfart; secretary-treasurer, Dr. L. H. Flynn. "A Talk on Surgery" was the subject handled by Dr. A. M. Jones of St. Paul, while Dr. F. S. Cook of Eau Claire read an interesting paper on "New Developments in the Treatment of Deafness."

JEFFERSON COUNTY

The following are the officers elected at the annual meeting of Jefferson County Medical Society, on December 8th: president, Dr. A. A. Busse, Jefferson; vice-president, Dr. R. C. Morris, Ft. Atkinson; secretary, Dr. W. A. Engsberg, Lake Mills; delegate, Dr. H. O. Caswell, Ft. Atkinson.

JUNEAU COUNTY

Juneau County Medical Society held its annual meeting at Camp Douglas on December 12, 1916. A six o'clock banquet was served at the Riley Hotel, and the following officers for the ensuing year were elected: president, Dr. Brand Starnes, Mauston; vice-president, Dr. W. B. Parke, Camp Douglas; secretary-treasurer, Dr. A. T. Gregory, Elroy; delegate, Dr. E. H. Townsend, New Lisbon.

LANGLADE COUNTY

Langlade County Medical Society held its annual meeting at the Hotel Butterfield, Antigo, on December 11th, 1916. A banquet was served. Three new members were taken into the society: Dr. Edwin R. F. Murphy, Antigo; Dr. S. A. Seymour, Elcho; and Dr. Clayton H. Charles, Rice Lake. The election of officers resulted as follows: president, Dr. M. J. Donohue; vice-president, Dr. I. D. Steffen; secretary-treasurer, Dr. J. C. Wright; censor, Dr. G. W. Moore.

MARATHON COUNTY

Marathon County at its meeting on December 22, 1916, elected Dr. W. A. Green president of the society for the ensuing year; Dr. William N. Daniels, Mosinee, vice-president. Dr. F. H. Frey, secretary-treasurer; Dr. S. M. B. Smith, censor. The meeting opened with a six o'clock dinner, which was a reception to Dr. J. R. Bryant, who recently returned from the Mexican border. Drs. Sauerhering, Smith and Spencer were appointed a committee to draft a resolution on the water supply question, to be presented to the council. A committee was also appointed to investigate the possibility of securing a branch hygienic laboratory for Wausau.

MARINETTE COUNTY

The Medical Society of Marinette County held its annual meeting on December 11th, 1916, electing the following officers: president, Dr. H. F. Schroeder; vice-president, Dr. William Boren; secretary-treasurer, Dr. Luella E. Axtell. A letter from the Anti-Tuberculosis Association urging that the society undertake an "exam-

ination day" met with a cordial reception. Physicians present agreed to give whatever time might be necessary to examine everyone unable to pay, details of time and follow-up work to be arranged by committee. Much enthusiasm attended the discussion of the proposed University Extension Service, and it was decided to take advantage of the opportunity frequently, if possible, once a month.

The annual banquet, held on December 7th, was participated in by physicians and their wives from Marinette, Peshtigo, Oconto, and Wabeno, Wisconsin, and from Menomonie, Stephenson and Daggett, Michigan. An enjoyable and profitable evening was spent. Toasts, music and some novel forms of entertainment were presented, the crowning feature being an address on "Prevention vs. Prescription," by Dr. Van de Erve, associate dean of Marquette University Medical Department.

OZAUKEE COUNTY.

Ozaukee County Medical Society met November 10, 1916, at Grafton, Wisconsin. The following officers for the coming year were elected: president, Dr. E. E. Coerper, Fredonia; vice-president, Dr. G. F. Savage, Port Washington; secretary-treasurer, Dr. Charles A. Balkwill, Grafton; delegate, Dr. H. M. Katz, Cedarburg.

CHARLES A. BALKWILL, M. D., *Secretary.*

PORTAGE COUNTY

Portage County Medical Society held its annual meeting at the office of Dr. W. W. Gregory, and elected the following officers: president, Dr. W. W. Gregory; vice-president, Dr. D. N. Alcorn; secretary-treasurer, Dr. J. D. Lindores; delegate, Dr. F. A. Southwick.

WAUKESHA COUNTY

Waukesha County Medical Society met at the home of Dr. A. J. Hodgson, Waukesha, on December 8, and elected officers for the year: president, Dr. H. A. Peters; vice-president, Dr. H. T. Barnes, Pewaukee; secretary-treasurer, Dr. S. B. Ackley. The business session was followed by a dinner and social time. Twenty-one members of the society were present.

WAUPACA COUNTY

Waupaca County Medical Society held a special meeting at the office of Dr. Chandler, Waupaca. The meeting was called to order by President Irvine of Manawa, and after the regular business meeting, Dr. Mills of Appleton read a paper on "The Diagnosis of Acute Abdominal Diseases" and Dr. Chandler of Waupaca gave a talk on "Tetanus." After the meeting the members enjoyed a dinner at the Hotel Delavan, at which time the work for the coming year was discussed. There were about twelve present at the meeting which was one of the best ever held.

WINNEBAGO COUNTY

Winnebago County Medical Society met on December 20th at the Elks' Club. Dr. H. M. Richter of Chicago spoke on "The Treatment of the Wounds of War," discussing wounds of soft tissues, compound fractures and open joints, illustrated by lantern slides. City Health Commissioner A. H. Broche availed himself of the opportunity presented by calling attention at this meeting to the pending proposition for the establishment in Oshkosh of a state co-operative laboratory, and requested that a time and place be determined for a meeting at which the matter may be discussed by those interested.

WOOD COUNTY.

Annual meeting of Wood County Medical Society was held at the Elks' Club, Grand Rapids, December 20th. The program follows: "Our Ideas on Bone Surgery," Dr. V. A. Mason; "Splenic Anemia," Dr. W. G. Sexton; "Relation of Lingual Tonsils to Whooping Cough," Dr. William Ruckle. A dinner was served after the meeting.

SOO LINE SURGICAL ASSOCIATION.

The annual convention of the Soo Line Surgical Association was held at Minneapolis on December 15th. Dr. Dodson of Chicago was elected president; Dr. A. J. Pullen, North Fond du Lac, vice-president; Dr. John Rishmiller, Minneapolis, secretary-treasurer.

NEWS ITEMS AND PERSONALS

DR. A. J. KREUTZER, Sturgeon Bay, will winter in California.

DR. JACOB LANG, Milwaukee, recently celebrated his fiftieth anniversary as a practicing physician.

DR. R. L. WILLIAMS has been elected superintendent of the Wisconsin State Tuberculosis Sanatorium at Wales, to succeed Dr. Frank Brockway, who resigned to resume practice at Oshkosh.

DR. J. W. COON, former superintendent of the State Tuberculosis Sanatorium at Wales, and more recently superintendent of the Chicago Municipal Sanatorium, has purchased Dr. Thomas L. Hay's controlling interest in River Pines Sanatorium at Stevens Point. He will assume charge as medical director immediately.

DRS. G. M. FITZGERALD and JOHN SMITH, recently of the Milwaukee County Hospital, have been appointed house physicians at Emergency Hospital, Milwaukee.

DR. ROBERT J. NEWMAN, Madison, has been appointed chief house physician at St. Luke's Hospital, Chicago.

DR. F. J. ANTOINE has been made chief physician at Rosencrans Sanatorium, Prairie du Chien.

Dr. G. B. McKnight was elected county physician of Fond du Lac County recently.

At a recent meeting of the officers of the State Medical Society held in Madison, it was decided that the State Society should be represented by some well known doctor to act as legislative agent, and elected Dr. L. H. Prince to fill this position.

Dr. Carl B. Sputh, La Crosse, physical director and coach of the La Crosse Normal School since 1913, has resigned to enter private practice at Indianapolis, Ind., in partnership with Dr. L. K. Cline of that city.

Dr. Julius J. Bellin, Green Bay, is convalescent after an operation for appendicitis.

Dr. J. E. Scheuerell, Columbus, is ill with typhoid fever.

Dr. J. F. Farr, Eau Claire, after a three months' siege of illness, is convalescent.

Dr. W. F. Zierath, Sheboygan, was recently compelled to submit to the amputation of the index finger of his right hand, following a severe infection incurred during an operation. Dr. Zierath was operated on at Wesley Hospital, Chicago, by Dr. A. B. Kanavel.

Dr. T. H. Hay, Stevens Point, who has been seriously ill since spring, is reported to be steadily improving.

The Supreme Court, in the case of George Morrison vs. Drs. Henke and Mast, La Crosse and the La Crosse Hospital Association, declared in a decision that the plaintiff had no cause for action. Morrison claimed to have received burns, while undergoing an operation, that permanently disabled him.

The jury in the case of Uawlak against Dr. C. A. Hayes, Chippewa Falls, decided in favor of the defendant, in the malpractice case tried on December 2.

Dr. A. M. Foster, lost his $10,000 damage suit against the Chicago and Milwaukee Electric Railway Company in Circuit Court recently, when Judge Belden ordered a verdict favoring the defendants. About a year ago, Dr. Foster, while driving his automobile, was struck by an interurban car of the company, and badly injured and the automobile wrecked. The court found for the defendants because evidence given at the hearing showed that negligence on the part of the plaintiff contributed to the cause of the accident.

Drs. E. R. Mulford, La Crosse, and E. A. Douglas of Richmond, Ind., have formed a partnership for the practice of their profession at La Crosse. They will limit their work to the treatment of eye, ear, nose and throat diseases.

Dr. Harry A. Vedder, who for several months has been doing special work at the Chicago Clinics, has joined his brother, Dr. J. B. Vedder in the practice of medicine at Marshfield.

Dr. Johnson, recently of St. Mary's Hospital, Milwaukee, has joined Dr. J. C. Lalor at Prairie du Sac, for the practice of medicine.

Dr. Charles Vilas, Madison, has tendered an offer to erect at his personal expense a tuberculosis sanatorium on the shores of Lake Waugesa, near Madison.

Dr. W. W. Johnston, Racine, 1st Lieut., Medical corps, Wisconsin National Guard, has received authority to start the formation of a motor ambulance company to be composed of five officers and sixty men.

Dr. Harry McCabe, county physician, Milwaukee, before the County Board recently urged the addition of an infirmary at the new House of Correction, despite the fact that plans for the institution do not contemplate such an adjunct. He will submit estimates for equipment.

Dr. John R. McDill, Milwaukee, chief surgeon of the American Physicians' expedition at the Fortress Hospital at Grandez, West Prussia, has been given the commission of inspecting the various hospitals in that district, according to a letter received recently in Milwaukee.

Dr. C. H. Nims, Oshkosh, announces that he will limit his practice to roentgenology and electrotherapeutics. He recently returned from an extended stay in New York, where he did special work in this line.

Dr. Geo. C. Ruhland, health commissioner of Milwaukee is preparing a series of lectures on public health and personal hygiene, to be delivered in the social centers and public schools.

Dr. J. Elliott Royer, Chicago, has returned from a three years' special work in neurology and psychiatry in Germany and England—the last year being in the Neurological Military Service in London—and has been elected assistant professor of Neurology in the College of Medicine in the University of Illinois, Chicago.

Dr. Nelson M. Black, Milwaukee, has contributed to the Bulletin of the University of Wisconsin a valuable and readable pamphlet, well illustrated, on "The Eye in Industrial Accidents". It is a most useful contribution to the prevention of blindness from eye inujries.

The West Allis General Hospital Company of West Allis met a petition in bankruptcy recently, filed by creditors, at a hearing before Judge F. A. Geiger. The company's indebtedness is listed at $766.38.

River Falls, Wisconsin, will have a hospital in the near future, which will be conducted by two graduate nurses, the Misses Melander of River Falls.

A new addition to Waldheim Park, Dr. Voje's Sanatorium, at Oconomowoc, is nearing completion. The building is 100 by 50 feet and contains twenty rooms.

The Board of Directors of the Milwaukee Children's Free Hospital and members of the medical staff met recently for informal discussion of plans for the new hospital, made possible through the gift of $150,000 by Ferdinand Schlesinger of Milwaukee, upon condition that the hospital association raise a similar amount.

The Beloit Hospital, Beloit, was slightly damaged by a fire on December 18th.

The schools of Stevens Point were closed on December 18th, owing to an epidemic of scarlet fever and diphtheria.

Notwithstanding the precautionary measures taken by the Milwaukee Health Department against the spread of scarlet fever, the number of cases has constantly increased, and on December 27th numbered 233, as compared with twenty-six a year ago.

A total of 127 public health nurses working in Wisconsin, where ten years ago there was only one, furnishes a demonstration of the change that has been brought about in the public's attitude on the subject of public health by the anti-tuberculosis campaign. Of the 127 nurses now in the state, only two are on the regular staff of the Wisconsin Anti-Tuberculosis Association.

Seventy persons were discharged from Muirdale, Milwaukee County's Tuberculosis Sanatorium, as cured during the first year of operation. Those in charge assert that this is a good record, considering the many things a new institution has to cope with. A much better record is predicted for the coming year. The institution is now filled, and tent shacks are being erected to accommodate patients on the waiting list. Work on the new cottage to be used solely for the care of children will begin in early spring. This cottage will be equipped with a hospital ward and an open air school room.

The State Camp for Convalescents at Tomahawk Lake, where graduates from the state and county sanatoria are being fitted to take their places again among the army of wage earners, without danger of relapse, has been in operation but little more than a year, and is making a convincing demonstration of the motto by which its purpose and its methods are explained: "Graded light labor permits self support." Twenty patients, the camp's full capacity, are getting ready to go back into industry, and as a part of the getting-ready process they are hunting, fishing, trapping, skating, clearing the land, running a truck garden, and various other activities. At the present time only men patients are admitted, but a movement is under way for the erection of a woman's cottage. The Wisconsin Camp for Convalescents is the only institution of its kind in the United States, and its success is being watched with great interest.

The annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in Cincinnati, May 9, 10 and 11, 1917. Members of the Association and other anti-tuberculosis workers are urged now to reserve these dates. The chairman of the various sections for the annual meeting are: Dr. Roger S. Morris, Cincinnati, Clinical Section; Dr. Paul G. Woolley, Cincinnati, Pathological Section; Dr. Charles P. Emerson, Indianapolis, Advisory Council; and Frank H. Mann, New York, Sociological Section.

Programs for each section will be in the hands of the respective chairmen.

The second term of the Trudeau School of Tuberculosis, opened at Saranac Lake, January 3, 1917. The course lasts for six weeks, closing February 10. The third course of the school will begin in June. These courses are arranged for physicians who desire to study tuberculosis intensively, and to perfect themselves in diagnosis, including institutional methods. Both clinical and laboratory instruction is provided. The fee for the six weeks' instruction is $100, with $10 additional for incidentals. A detailed prospectus and information about the school will be sent upon application to the Director, Dr. Edward R. Baldwin, Saranac Lake, New York.

More than 31,780 consultations have been held between the students in the University of Wisconsin and the physicians of the University Clinic in the past year. About 75 per cent of the students visited the clinics at some time. All students are given medical examinations. They are listed A, B, C, and D, according as they pass the test. Students in class A are allowed to enter competitive sports; those in class B are allowed to enter the major sports, but are kept under close supervision; class C students are put in what is known as the "light gym.", and those in class D receive special prescriptions, and their work is carefully supervised by the clinical force.

The 1916 report of the Milwaukee County Hospital shows that 3311 cases were treated during the year. In addition 1,500 Wassermann tests were made. The number of deaths was 405. The cases treated included alcoholism, 92; appendicitis, 52; arteriosclerosis, 61; lobar pneumonia, 166; malaria, 7; meningitis, 11; myocardial insufficiency, 122; blood diseases, 89; tabes dorsalis, 18; tuberculosis, all classes, 483; typhoid fever, 48; miscellaneous cases, 2,162.

At a meeting of the Trustees of the Milwaukee Emergency Hospital, held on December 29, it was decided that two members of the staff visit the hospital every day during 1917. One visitor will be a surgeon and the other a physician. This service is in addition to the regular service of the house physicians and internes. At this meeting Dr. Harry E. Bradley, was elected president of the staff, Dr. Charles Lemon, vice-president, and Dr. Oscar Lotz re-elected secretary.

At a dinner given recently to the regents and faculty members of the Medical Department of the University of Wisconsin at Madison, Dr. Edward Evans proposed the creation of a salaried office under jurisdiction of the medical department of the University, the place to be filled by a physician of the highest standing, whose duties will be to serve as an information bureau to the practitioners of Wisconsin. He will travel about the State, organize medical societies where none exist, revivify those which are languishing, help prepare interesting programs, do all he can to induce physicians to attend the medical society meetings better, and take part in the discussion, will bring home to the physicians the advantages of the post-graduate courses, and in every way raise the standard of the profession. Indirectly this work is hoped to have splendid effect on public health.

The school children of Racine are to help equip a public school dental clinic. A collection is made annually among the schools the day before Thanksgiving, and the collection this year has been put into the fund, the greater part of which is to be given by Racine dentists and business men, and will go to install a free dental clinic for the public schools.

Free dental work for needy school children is now being supplied in six Wisconsin cities—Janesville, Madison, Milwaukee, Oshkosh, Racine and Wausau—according to information compiled by the municipal reference bureau of the University.

Dr. C. E. Banks, United States Public Health Service, has declared that the city of Milwaukee must care for the Greek leper discovered there several months ago. The federal government is not responsible for the man, he asserts.

The American Association for Labor Legislation has just published a pamphlet for the purpose of placing before physicians those sections of the standard Health Insurance bill of the American Association for Labor Legislation which are of special interest to the medical profession. A number of important new sections have been worked out in a series of conferences during the past six

months with representative medical men. They contain, it is believed, the fundamental principles for safeguarding the interests of both doctors and patients, and are now advanced as a basis for further criticism and discussion.

National medical examination day, observed in Milwaukee on December 7th, apparently proved a "frost". At the city hall clinic there were only 21 applicants, which total is often exceeded on other days. No applicants at all were received at the South Side Dispensary. At Marquette University Dispensary 50 people took advantage of examination day. The authorities were disappointed that more did not apply. The failure of the plan is attributed to lack of proper publicity, and the fact that people have not become accustomed to the plan. Another attempt will be made later to furnish free examination to all who apply.

October marked the first period in which cancer has taken a greater toll in Wisconsin lives than tuberculosis. For years cancer has followed tuberculosis in fatalities, with pneumonia always leading the list as a cause of death. Cancer cost 164 lives during October, tuberculosis claimed 158, pneumonia led all as usual with 165 deaths.

COUNTY CLINICS ON DIAGNOSIS OF TUBERCULOSIS.

The Wisconsin Anti-Tuberculosis Association has agreed to furnish consulting tuberculosis specialists to conduct clinical demonstrations in the diagnosis of tuberculosis for County Medical Society meetings.

Arrangements may be made direct with the Wisconsin Anti-Tuberculosis Association, 471 Van Buren St., Milwaukee.

MARQUETTE DISPENSARY.

The Dispensary Clinic of Marquette University School of Medicine has just completed its first three months since its reorganization. Statistics covering this period are not yet completed, but will appear in the next issue.

The present Dispensary Clinic combines the former North Side and Trinity Dispensaries. It is housed in the building of the former North Side Dispensary, and the ground floor of the Medical School building, both of which have been completely remodelled to meet the need for more adequate medical care, and more scientific teaching.

The present organization includes twelve regular departments, and three special departments. The regular departments are: Male & Female Medical, Pediatrics, Gastro-Intestinal, Nerve, Skin, Male & Female Surgical, Eye, Ear, Nose & Throat, Gynecology, Genito-Urinary.

Special departments, for the assistance of the regular departments in diagnosis and treatment are the Laboratory, the X-Ray, and the Massage.

A small clinical laboratory is maintained adjoining the clinic rooms, for the simpler tests. The large laboratories of the Medical School, located in the same building, are used for more elaborate tests and experimental work.

The X-Ray Department is equipped with a machine of the latest design for radiographic and fluoroscopic work. In addition there is a special room for X-Ray and Ultra Violet therapy.

The dispensary has secured the services of a masseur, and a masseuse who will carry out all forms of electro and mechano therapy.

A special room has been fitted up for the administration of Salvarsan. This is the only place in Milwaukee where ambulatory cases can receive such treatment at institutional rates.

The Social Service Department which has recently been established is designed to assist the doctors in carrying out the prescribed treatment and to make the medical service more consecutive and more efficient than has been possible previously.

The tuberculosis clinic formerly maintained by the Milwaukee Society for the Care of the Sick, at the North Side Dispensary has been given up and a Tuberculosis Clinic under the City Health department is taking its place in the Marquette Dispensary building.

The dispensary clinic is open daily, except Sundays and holidays. Patients are admitted between 12:30 and 1:30 P. M. Physicians give their services between one and three P. M.

MARRIAGES

Dr. S. G. Pake, Superior and Miss Rhea Janet McManus, Duluth, Minn., on December 23rd.

DEATHS

Dr. W. R. Churchill, Reedsburg, died suddenly on December 9th, aged 71 years. He was a graduate of Hahnemann Medical College, Chicago in 1874.

Dr. A. A. Dougherty, Muscoda, formerly located at Boaz and Richland Center, died on November 30, aged 65 years. He was a graduate of Starling Medical College, Columbus, Ohio, in 1896.

Dr. William E. Buschman, Milwaukee, died on December 17, 1916, aged 51 years, following a stroke of paralysis. He was born at Manitowoc, Wisconsin. Dr. Buschmann formerly practiced at Two Rivers. He was a graduate of the University of Michigan, School of Medicine, in 1887.

Dr. Preston H. Sharp, Pontiac, Michigan, formerly of Madison, died on December 22, 1916. Dr. Sharp had been in poor health for many years, and was not actively engaged in the practice of medicine. He was born at Cottage Grove, Wisconsin, 68 years ago, was educated at Albion Academy, and studied medicine at Columbia Medical College, Columbus, Ohio, graduating in 1884.

Dr. William F. Scott, Port Washington, died on November 28, 1916, at Mt. Sinai Hospital, Milwaukee. He was born in Stoughton, Mass., and when 8 years old went to live at Stevens Point, Wis. He was graduated from the Oshkosh Normal School, taught at Cedarburg, was superintendent of schools of Ozaukee County for six years. He studied medicine at Rush Medical College, graduating in 1887. He had practiced at Pt. Washington twenty-one years. He was 65 years of age.

Dr. Norman J. Cranmer, River Falls, died on December 7th, aged 80 years. Dr. Cranmer was born April 3, 1836, at Garrettsville, Ohio; received his early education in Ohio; literary training at Hiram College, Ohio, and Cooper Institute, New York. In 1859 he went to California, in 1866 returned to Ohio; received his medical education at the University of Michigan, graduating in 1870; practiced in Van Buren, Allegan and Missaukee Counties, Michigan, for forty years; retired from active practice six years ago, and came to River Falls to live.

Dr. Robert W. Odell, Detroit, Michigan, formerly of Florence, Wisconsin, died at his home on November 28th, aged 75 years. Dr. Odell was born in Ireland, and came to America as a youth. He studied medicine at the University of Michigan, School of Medicine, graduating in 1866. During the Civil War he enlisted in the Navy. He spent a number of years in Kentucky and Wyoming as army surgeon; came to Florence in July, 1880, as surgeon for the Commonwealth Iron Company and the Florence Mines. In 1891 he resigned both positions because of ill health and went to Detroit to live.

Dr. Frederick D. Bentley, Portage, died on December 23, 1916, aged 52 years. Dr. Bentley was born in the township of Lemonweir, Juneau County, Wisconsin, October 22, 1864. He graduated from the Mauston High School in 1883, and immediately entered Rush Medical College, completing his course in 1886. He located in Portage that year. In 1889 he was appointed assistant superintendent of the State Hospital for the Insane at Dunning, Illinois, where he remained one year, and returned to Portage, where he had since resided. He was for a number of years Health Officer of Portage, he erected and maintained the first hospital in the city of Portage, and was for many years surgeon for the Chicago, Milwaukee and St. Paul Ry. He was a member of Columbia County and the State Medical Societies.

REMOVALS

Dr. Gertrude Batchelor, Madison to Chicago.

Dr. I. Franklin, Milwaukee to Sheboygan.

Dr. D. F. Flower, Park Falls to Tripoli.

Dr. W. Lyons, Eden to Kenosha.

Dr. F. B. Taylor, Lodi to Madison.

Dr. M. H. Rice, Cameron to Ripon.

Dr. P. T. Trowbridge, Milwaukee to Washburn.

Dr. Paul B. Wallace, Tomah to Denver, Col.

Dr. Adam Pfeiler, for the past six years at the Rodd Hospital, Hibbing, Minn., has located at Sheboygan.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

HEREDITY AND HEALTH.*

BY PROF. R. C. MULLENIX,

LAWRENCE COLLEGE,

MILWAUKEE.

(*Concluded.*)

It would be interesting to know how large a percentage of the babies born into the world are met by the question, "Are you marked?" as the first greeting of their mothers. In the light of the biological evidence relating to the transmission of acquired characteristics and to the independence of the germ plasm and the somatoplasm, as well as the prescribed nature of the development of the egg, regardless of environment, it would be surprising indeed if it were true that the popular ideas as to the origin of birthmarks were correct. According to these stories "structural changes are produced in the unborn child corresponding to some mental experience of the mother, usually a vivid impression of strong emotion" (Guyer). But when a supposed instance is traced back to its sources, it usually turns out to be a mere case of hearsay, and even the clearest cases, when subjected to scientific study, have proven to be more reasonably explained as coincidences than in any other way. These stories of the "mother who sees a mouse with the result that a mouse-shaped birthmark occurs on the child; or of one who sees a crushed hand, and as a consequence the child she bears lacks some of the bones of the hand; or she touches her body, and thus marks her child on the corresponding part of the body; or she produces beauty in the child by long contemplation of a beautiful picture";—stories of this sort, when followed up, have thus far turned out to have no scientific credibility and they may properly be dismissed as myths persisting from an age more credulous than ours. The anxiety and disquietude of many prospective mothers in regard to marking their children has no warrant from our knowledge of the facts of nature, and any maternity nurse owes it to her patients to allay their fears in this matter.

But while it is true that in so far as these stories have been scientifically investigated they have failed of substantiation, it should be stated that the subject has not been investigated to anything like the extent which its importance justifies, and it is desirable that it receive more critical attention in the future than it has in the past. It needs to be further added that what has been said as to maternal impressions does not imply that the developing foetus is in any complete sense independent of the body of the mother. What we can say is that the body of the mother furnishes either a favorable or an unfavorable environment for the developing child. Any lack of nutrition which affects the mother will necessarily affect the child, any body toxins in the blood of the mother, either as the result of disease or of over-fatigue or lack of rest; any poisons dissolved in the mother's blood, such as mercury, lead, or alcohol, unquestionably affect the child in a deleterious way. It is believed that the pitiable plight of the children of syphilitics is due, not to the inheritance of the disease itself, but to the deleterious effects of toxins due to the disease in the parent, which act as a poison either to germ cells or to the foetus, resulting in feeble-mindedness, idiocy, some forms of epilepsy, and various other physical afflictions and distortions.

Coming now to the consideration of the inheritance of diseases, it seems to be pretty well established that any disease that is "caught," as we say —any germ disease, is not inheritable in the scientific sense in which the term heredity is used. This is as we should expect it to be in the light of our views as to the non-inheritability of acquired characters. The fact that a person has tuberculosis, for example, is certainly due to the fact that bacteria of a certain species have found lodgment in his body and have found there a favorable environment for their development. Now while we are probably justified in affirming that no person ever inherited tuberculosis of the lungs, it must be recognized that lung structure *is* a matter of inheritance, and that certain types of lung structure are much more impervious to the lodgment and harboring of these bacteria than others. It needs to be further recognized that general bodily vigor, what we call a "strong constitution" or a "weak

*Read at the Annual Meeting of the Wisconsin State Nurses' Association, Milwaukee, Oct. 24th, 1916.

*The writer has drawn freely on the excellent book by Dr. Guyer on "Being Well Born."

constitution," by which we mean the body's power of resistance either to bacteria or to the toxins produced by bacteria—this susceptibility, or non-susceptibility, the power of resistance or the lack of that power, is included in our biological inheritance.

This simply means that certain disorders are much more easily called forth in certain persons by appropriate bacterial or other stimuli, than they are in others. This explains the fact that while tuberculosis is not transmissible in heredity, it often appears in several members of the same family and it often reappears in succeeding generations. Here again we have not the transmission of an acquirement, but of the capacity to acquire; not the inheritance of a disease but of a tendency to a disease. For practical purposes this may seem to be a distinction without a difference, but it throws the responsibility for tuberculosis where it belongs—upon environment, which is more or less subject to control, rather than upon heredity, which cannot well be changed after one is born. To my mind, the situation seems considerably more hopeful than it would be if tuberculosis had to be regarded as hereditary. The problem in dealing with tuberculosis as I understand it, is one of so controlling the environment, including the control of the practices of those who are the victims of the disease, and including the selection of a place of abode. It also includes the control of the nutrition of the body and the other factors that have to do with bodily resistance. As I said before, I feel that the situation is decidedly less hopeless for a person who inherits a capacity, or even a tendency for tuberculosis, than it would be for one who inherited the disease itself. The situation may justly be compared to that of insanity and feeble-mindedness. There is small hope for a person of a feeble mind, which is an hereditary defect—much less hope for such a person than for a person of a normal mind except for a possible tendency to insanity, some forms of which, at any rate, are not inheritable. A person born with a tendency toward any defect may, by intelligence, so direct his life that he shall reduce the likelihood of a break to a minimum.

Some diseases which are clearly not hereditary may be congenital. In order to be inherited, a disease must be resident in the germ plasm—the eggs or spermatozoa. To quote from Guyer, "Anything that operates on the germ after the fusion of the sex-nuclei, modifying the embryo, or even inducing an actual deviation in the development, cannot be spoken of as inherited. It belongs to the category of early acquired deviations, which are therefore frequently congenital." It is said that an unborn child may take smallpox from its mother, but this would be a case of contagion, and not a case of inheritance. In the same category belongs gonnorrhea, which is commonly found in children of those afflicted with it, not as the result of germinal inheritance, however, but of infection occurring either at the time of birth or very soon after. It is claimed that as much as 80 per cent, some say all, of the blindness of children born blind is due to such infection. This again is a much less hopeless situation than we should have if the disease were biologically inheritable, for it has been found possible to prevent infection by the use of proper procedure. In his recent book on "Being Well Born," from which I am quoting freely, and which I recommend highly, Guyer tells us that some state boards of health and some city health departments supply all physicians and maternity nurses with specially prepared packages containing cotton and nitrate of silver solution for preventive or curative treatment of the eyes of all newly born children. It is claimed by German authoritives, who have been following this method of treatment now for some years, that 19/20 of the blindness of infancy can thus be prevented.

Coming now to the transmission of alcoholism, we have all doubtless known drunkards who blamed their appetite for strong drink upon their fathers. I have in mind a friend of my college days who was not able to resist the cup. He excused himself on the ground that his father was a drunkard, and that he had inherited the insatiable appetite for strong drink. This too is a subject which should have, and is receiving, further biological investigation. But so far as the scientific evidence goes it seems to point toward the conclusion that the appetite is not a matter of heredity. The children of parents who are victims of alcoholism are often injuriously affected, but the effect is of a different nature, from that produced in the parents, showing itself in various forms of defectiveness, such as rickets, epilepsy, and other disorders.

The fact that drunkards frequently appear in successive generations is sufficiently explained by the fact that mental traits are transmissible. In the first place, in many cases it has been shown that drunkenness is the *result* of degeneracy rather than its cause, and the same degeneracy which in

the parent caused him to tarry too long at the wine was transmitted to his progeny and caused him to lead the same kind of a life. One English authority on drunkenness claims that about 63 per cent of the inebriates who come to him are mentally defective, naturally. I, of course, cannot attempt to go into this matter exhaustively in the time that is now at our disposal. It must suffice to say that the influence of alcohol upon unborn generations is a subject of great importance, in regard to which there is great need for further investigative work.

So we may set it down as pretty well established that the direct transmission of disease from generation to generation is almost negligible. We may, however, inherit or transmit strength or weakness, physical or mental. We may inherit or transmit tendencies and capacities, in various directions. The end result is conditioned by the environment under which we live—including the air we breathe, the food we eat, the work we do, the rest we take or fail to take, the influences of associates, friends, home, school, saloon, brothel, or other social agencies.

From the practical standpoint, however, we must not overlook the fact that the family often transmits to its new generation a tendency to disease, a weakness of constitution, a capacity for infection, and at the same time an environment favorable to the development of this weakness. The parent who is a victim of tuberculosis is very likely to have passed on to his child the same lung structure, the same weak resistance, that made him an easy victim of infection. If now his child, thus born with a special susceptibility to tuberculosis, grows up in the same house with him, makes use of the same utensils that he uses, there is every reason to expect that he too will become infected. A weak will, and a jovial disposition, are often characteristics of the drunkard. These are mental traits that are transmissible to the young. If a lad is born with these hereditary mental traits, and is brought up under the influence of a father in whom they have resulted in a fondness for the saloon and its associations, we have a situation in which both heredity and environment are co-operating in the production of a new drunkard. This principle is of wide application, holding good not only for tuberculosis and alcoholism, but for many other antiracial and antisocial tendencies. It furnishes ample justification for the gospel of Eugenics, the last born of the sciences, the daughter of biology and sociology. Eugenics aims to encourage the propagation of the stronger strains of human protoplasm, and to attempt to "dry up the springs that feed the torrent of defective and degenerate protoplasm" that is furnishing material for the dregs of society.

This social direction of human evolution was perhaps the boldest and most altruistic dream of modern biology, and the eugenics movement had acquired considerable momentum when the Great War broke out. But it is obvious that all talk of race improvement, of perpetuating the better stocks and eliminating the weaker ones, falls flat at a time like this, when so many of the supposedly civilized and enlightened nations of the world are engaged in the destruction of their strongest and bravest and best. We were entering upon the most humanitarian and most unselfish propaganda in the history of science—we were championing the cause of the unborn generations, when this thing broke upon us. But until the more immediate task of terminating the wanton and wholesale destruction of the best human stock shall have been accomplished, until the war on war shall have been brought to a successful issue, all talk of racial betterment by the social control of human matings is silly, sentimental twaddle. Under the thralldom of the God of War, there comes the call to the women of France that if there is to be any land of the lily, they must supply four children apiece during the next twenty-five years—the boys, of course, to be food for the cannon, the girls to be mothers of more food for cannon.

The goal of biological investigation is of course, the higher development of humanity. From the standpoint of this consideration we may as well admit that the program of eugenics must be staged far into the future, and that our more immediate task is to help bring to all the nations the gospel of racial solidarity, the biological doctrine of the interdependence of men, that humanity is above all nations and we must all stand or fall together, the gospel of good will among men and peace on earth.

NEWS ITEMS AND PERSONALS.

The Committee of Examiners for Registered Nurses will hold the regular mid-year examination in Madison, January 9th and 10th at the Park Hotel.

Miss Stella Mathews, registrar of the Milwaukee County Nurses' Club, spent the holiday week in Minneapolis, the guest of her brother.

Miss Mathild Krueger, rural health nurse of Dunn County, spent the holiday season at her home in Neenah.

Miss Nettie Hawley, formerly anesthetist and roentgenologist at the Milwaukee County Hospital, recently resigned her position there and is at present in charge of one of the floors at the Emergency Hospital, Milwaukee. Miss Julia Campbell succeeds Miss Hawley at the County Hospital.

An appropriation recently secured provides for medical inspection of the parochial schools of Milwaukee. A corps of five physicians, one dentist and five nurses will begin the work at once and will be under the direction of the municipal health department.

The La Crosse Graduate Nurses' Association held its December meeting at the St. Francis Hospital. Miss Tracy Copp, chief of the Women's Department of the Wisconsin Industrial Commission, was the guest of the Association and gave an interesting talk about her work. This was followed by a social hour and refreshments.

On January 29 and 30, Miss Emma Wilson, of Washington, D. C., will be in Milwaukee and writes that she especially wishes to meet groups of pupil nurses to give talks on Rural Red Cross Nursing. Miss Wilson is assistant to Miss Fannie Clement, Superintendent of Town and Country Nursing Service under the National Red Cross.

Miss Mary Lent, one of the Executive Secretaries of the National Organization of Public Health Nursing, will be the guest of her niece, Miss Katherine Olmstead, at the Milwaukee County Nurses' Club, early in February. Miss Lent has been in Los Angeles, where she reorganized the Public Health Nursing Service, making it a body for generalized service. She will meet the Public Health Nurses of Milwaukee at a luncheon at the Club House.

Miss Agnes Larsen, of the Kenosha Hospital, Class of 1916, has accepted a position at the Goshen Hospital, Goshan, Indiana.

January 1st, 1917, the graduate nurses of Kenosha met at the Kenosha Hospital and formed the Kenosha Graduate Nurses' Association. The following officers were elected: President, Miss Constance Hays, R. N.; Vice-President, Miss Jane Truat; Sec'y-Treas., Mrs. Millicent Northway, R. N.

Born to Mr. and Mrs. Leith Timme, in Kenosha Hospital, December 7, 1916, a daughter, Mary Elizabeth. Mrs. Timme was Josephine Loomer of the class of 1914, Kenosha Hospital.

Miss Maud Walker, R. N., of Blessing Hospital, Quincy, Ill., died at Augustana Hospital, Chicago, December 31, following an operation. Miss Walker had held the position of surgical nurse at the Kenosha Hospital for two years. She was a capable, efficient worker and a loyal member of various nursing organizations. Her loss is deeply felt by all her associates.

The following was written to amuse a very nervous obstetrical patient who said she began to think her condition was a crime, as no less than five nurses, when asked to take her case, replied, "I never take an obstetrical case."

THE PLEA OF THE EXPECTANT MOTHER.

Oh nurses, dear sisters, whate'er will you do,
In the years beyond this, when the time comes to you,
When you are stating your case with a fluttering heart,
With white trembling lips and with tears that will start?
And the answer comes thus, with no very good grace,
"I never do take an obstetrical case."
So you're left in the hands of a practical nurse,
Or with no one at all, which is many times worse;
And instead of your motherhood bringing you joy
In the pleasure of caring for your girl or boy,
Your days will be dreary with dread, ache and pain,
And your baby will not show one bit of gain.
Then you'll finally come to the bed in the ward
Where the practical nurse is despised and abhorred,
But the one who refused the obstetrical case,
With her competent air and smiling young face,
Will be called in to care for you, poor broken wreck,
With your unceasing headaches, and pain in your back.
And you need not have come to this much dreaded place,
If a nurse would just take one obstetrical case.
You may talk all you want to of prenatal care,
And of better fed babies—but, sisters, beware!
For who's going to care for our grand future race,
If you never will take an obstetrical case?
Oh nurses, who ever are thoughtful and kind,
And who always bring healing of body and mind;
Won't you the dread weight from each mother's heart chase,
And when asked again, take an obstetrical case?

—*Jemima Bell.*

LONGER LIVING.

Who knows what we are facing as a nation in the years to come? One thing we do know—there is to be a struggle for existence, and the nation that is physically sound at the core is the nation that will hand down its civilization to the centuries. To study where we are weak, to study how we can make each generation a little better than the preceding one, instead of drifting with the tide of so-called natural evolution and trusting to luck that we shall not meet the destructive fate of all previous civilizations; to find out the facts about ourselves and our children and proceed to do our duty by our bodies and theirs by applying the lessons of science in the art of living; to accumulate health and vitality instead of disease and degeneration—these things I look upon as simple elementary measures in preparation for either war or peace.—*E. L. Fisk, M. D.*

BOOK REVIEWS

A Manual of Otology. For Students and Practitioners. By Charles Edwin Perkins, M. D., F. A. C. S., Professor of Clinical Otology in New York University and Bellevue Hospital Medical College; Associate Aural Surgeon to St. Luke's Hospital; Assistant Aural Surgeon, New York Eye and Ear Infirmary; Fellow, American Otological Society, New York Otological Society, New York Academy of Medicine, etc. 12mo, 445 pages, with 120 engravings. Cloth, $3.00, net.

The author, who has been a co-worker with Dench for many years, has written a very excellent, concise, and clear Manual for the use of undergraduate and post-graduate students of Otology. This consists of some 400 odd pages of well illustrated text. No attempt has been made to make a reference book of this work, although some references to the illuminating articles and monographs in this field are included.

The chapter on anatomy is very ably written. The difficult anatomy of the temporal bone and its contents is presented in an exceptionally clear manner. The text is accompanied by very helpful cuts and illustrations.

The chapter on the examination of the ear and functional testing, a field difficult of understanding, is well written. Nothing of importance is omitted but unproven or disputed data are left out. The same may be said of Chapter 4 which deals with the Diseases of the External Ear, particularly the portion relating to the infections of the external auditory canal.

In his treatment of the non-suppurative diseases of the middle ear Perkins takes up:

1. Tubal catarrh.
2. Tubo-tympanic congestion.
3. Otitis media catarrhalis chronica.
4. Otosclerosis.

The separation of the tubo-tympanic congestion from tubal catarrh on the one hand and from otitis media catarrhalis chronica on the other is unnatural and unnecessary from the standpoint of pathology, symptomatology and treatment. The subject of otosclerosis is presented as clearly as our present knowledge of the pathology of this condition warrants.

In his treatment of the subject of Inflammations of the Middle Ear, Perkins advises two measures with which we cannot agree. We do not believe that it is ever justifiable to inflate the middle ear if fluid in the tympanum is suspected. He advocates the syringing of an external canal every two to four hours after a myringotomy. We consider the dry wick treatment as a much more sane and safe one in these cases.

The anatomy of the mastoid and the operative treatment of acute mastoiditis are very ably handled but the indications for operation are only lightly touched upon.

The fundus changes in chronic otitis media are very thoroughly and accurately discussed. The discussion of the radical and modified radical operations is very easily understood and visualized.

Chapter 10 deals with the suppurative diseases of the labyrinth. In dealing with the subject of the functional tests of the labyrinth, problems which are still unsettled are wisely omitted.

The actual mechanism of the functional tests of the labyrinth and the meaning of these tests is discussed briefly with the aid of simple diagrams. The question of operative interference in infections of the labyrinth is very conservatively dealt with and rightly so, in the light of our present knowledge of this difficult and dangerous field. Perkin's conclusions on the whole matter are, that no doubt can exist but that a patient with a suppurating labyrinth is better off if that labyrinth is drained. The operative technique of labyrinthine drainage is briefly, carefully, and accurately described.

The remainder of the book deals with the complications of purulent otitis media such as meningitis, brain abscess, facial paralysis and with the non-suppurative diseases of the inner ear.

On the whole this book can be very highly recommended to the student of otology.

W. E. G.

Diagnosis and Treatment of Surgical Diseases of the Spinal Cord and its Membrames. By Charles A. Elsberg, M. D., F. A. C. S., Professor of Clinical Surgery at the New York University and Bellevue Hospital Medical College. Octavo of 330 pages, with 158 illustrations. Cloth, $5.00, net. W. B. Saunders Company, Philadelphia and London, 1916.

This monograph by Dr. Elsberg is largely based on his personal operative experience. It is most profusely illustrated. The illustrations are beautifully done and take up about half of the book. The large print leaves not very much for actual text.

Diagnosis is not covered very thoroughly but the operations upon the vertebrae particularly those of laminectomy for tumors and division of the posterior spinal roots are given in some detail, the illustrations including full page cuts of various types of rongeur forceps and the suture of the skin incision.

The book will be helpful to those who actually operate on the spines, but we can not see how it would be worth five dollars to any physician except as a fine example of the publisher's skill in reproducing illustrations.

The section on Meningocele is good but brief. In fact brevity is noticeable throughout the text.

The contents are divided into three main headings. Part I.—The Anatomy and Physiology of the Spinal Cord. The Symptomatology of Surgical Spinal Disease. Part II.—Operation upon the Spine, Spinal Cord and Nerve Roots. Part III.—The Surgical Diseases of the Spinal Cord and Membranes, and their Treatment.

The Practitioner's Visiting List for 1917. Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size, substantially bound in leather with flap, pocket, etc.: $1.25, net. Lea & Febiger, Publishers, Philadelphia and New York.

Anyone who has used this handy Visiting List needs no recommendation from us. Those who do not know it would do well to make its acquaintance as early as possible. This copy is attractively bound and contains much useful tabloid information in the first few pages.

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ORIGINAL ARTICLES

CHRONIC APPENDICITIS.*

F. GREGORY CONNELL, M. D., F. A. C. S.,

OSHKOSH, WISCONSIN.

In bringing the subject of chronic appendicitis to your attention, I trust that I will not be understood as minimizing, in the least, the importance of acute appendicitis.

The latter has been given so much attention and publicity that the facts concerning it, are quite uniformly recognized: and, at least, are available to the sincere student of the subject.

The facts concerning chronic appendicitis are not uniformly recognized and consequently are not available. The subject calls for elucidation, not because of a high mortality rate, but because of a disconcerting morbidity rate, i. e., a persistence of symptoms after treatment, which results in dissatisfaction with, and loss of faith in, the profession by the laity, which in turn assumes serious aspects when the question of treatment of acute appendicitis must be met.

Chronic appendicitis needs study because the confusion and differences of opinion regarding it extend, even to a definition of what is meant by the term.

In the voluminous literature dealing with appendicitis the section devoted to the chronic type of the disease has been so small as to be absurd. For example Howard Kelly, in his encyclopedic work on appendicitis devoted 20 pages to the acute, and but a fraction of one page to the chronic symptomatology. And on page 405 says: "Chronic appendicitis may follow an acute attack, or may be chronic from the beginning."

"The clinical picture of chronic appendicitis is very varied, including in its mimicry almost all the chronic diseases to which the abdomen is subject" and on the other hand there is "the recurrent type, characterized by the occurence of repeated acute or subacute attacks with intervals of perfect freedom from any clinical evidence of the disease."

"The chief symptoms are referred to disturbances of the digestive functions, but pain and tenderness may be troublesome and serious, and in consequence of the poor nutrition and the more or less constant suffering there may be emaciation, great weakness, and lack of energy, and often pronounced nervous manifestations."

The above quotations from such an authority as Kelly, certainly leave much to be said, before a clear clinical picture of chronic appendicitis is available.

The "usual symptoms"—pain and tenderness in the right iliac fossa, constant or periodic, dyspeptic symptoms, constipation, and in the female, dysmenorrhea, have frequently been found to be deceptive guides to diagnosis.

The fact that one may have acute appendicitis, without the presence of some if the characteristic signs and symptoms, has been frequently met with, has been justly emphasized, and is generally recognized.

The fact that one may have some of the characteristic symptoms of chronic appendicitis, without the presence of disease of the appendix may be frequently met with, if remote results are checked up, has been insufficiently emphasized, and is not generally recognized.

That there is such a condition as chronic appendicitis no one, with experience, may question. That many cases called chronic appendicitis are, in reality, not so, likewise may not be questioned.

Therefore, a first step in the consideration of the subject calls for a differentiation and the elimination of the many possible confusing conditions that may simulate chronic appendicitis, such as diseases and lesions of the stomach, duodenum, intestines, gall bladder, liver, pancreas, genito-urinary organs; uterus and adnexa, vertebra, spinal cord, nervous system, tuberculosis, malignancy, syphilis, orthopedic conditions, etc.

*Read at the 70th Annual Meeting of the Wisconsin State Medical Society, Madison, Oct. 4-6, 1916.

After the above conditions have been excluded, to the best of our ability, by the utilization of all possible aids in diagnosis (if not by yourselves before operation, then in many cases, by some one else after operation) there then remains the very important, final, and difficult differentiation, between the true type of the disease, and that other type, which temporarily, until the exact pathology is known, might well be termed pseudo-appendicitis.

Appendicitis, either acute or chronic, or an appendix that has been the site of an unquestioned inflammation calls for surgical treatment; pseudo-appendicitis, on the contrary, is in no way related to the appendix and is, in all probability, a non-surgical condition, in which appendectomy is contra-indicated; hence the necessity of a differential diagnosis between them.

Such a differentiation is many times extremely difficult and an exploratory laparotomy, with diagnostic appendectomy may be indicated as a final step. But after the removal of the appendix and the elapse of a number of months the differentiation may become quite simple. Those patients who have a return of their symptoms, after the exclusion of the above confusing conditions, and the removal of the appendix, are with ease, classified under the heading pseudo-appendicitis.

This subdivision will be found to increase with the greater care that the after history, and remote results, are studied; and to decrease with the greater care given to the study of the case before instituting operative measures. To repeat, with more careful post-operative study, the good results diminish, with more careful preoperative study, the good results increase.

That the number of cases falling into this classification is such as to warrant serious study and consideration is shown by the fact, that in a study of this subject I was able to gather, from my personal case histories up to January, 1916, 87 cases (not all of which were operated upon by myself) that could be consistently included in this group.

Since then in 1916 to Sept. 1st, I have examined, more or less completely, 19 cases in which appendectomy failed to relieve symptoms (many of these have been but incompletely studied and the possibility of demonstrable pathology causing the symptoms has not been satisfactorily excluded).

During the years 1915 and 1916 to September 1st, the diagnosis of pseudo-appendicitis has been made in 31 cases, and operation was not recommended in each case. But it was explained to the patient or relative, that if they chose the appendix might be removed as a prophylactic measure against a future acute appendicitis, and as a diagnostic measure to either prove or disprove the diagnosis.

With the above understanding, appendectomy with a general abdominal exploration was carried out in seven cases and was followed by a return of symptoms in six instances.

During this same space of time, operation was undertaken with a diagnosis of true chronic appendicitis in 24 instances. In three of which there were no clinical symptoms of the disease, the operation being performed solely upon a satisfactory history of a previous attack of acute appendicitis, and the diagnosis was unquestionably confirmed by the operative findings in each case.

The above figures are given merely as an attempt, in a rough way, to show the relative proportion of the true and the false in a given number of cases of so-called chronic appendicitis.

In 55 cases, 3 are excluded because of a lack of symptoms, of the remaining 52; 31 were called pseudo, and operation advised against; the other 21 were considered as true chronic appendicitis and operated upon, many cases in this latter subdivision are too recent to permit of a discussion of the accuracy of the diagnosis as shown by the remote results.

A study of the 87 cases up to January 1, 1916, in which faithful and sincere attempts to exclude the usual confusing conditions were made, has been reported in the J. A. M. A., July 29, 1916, and revealed the following, more or less, instructive findings, and conclusions.

SUMMARY.

These cases of pseudo-appendicitis were usually in young thin adults from 15 to 30 years of age, more common in females, and about equally divided between married and single.

The duration of symptoms varied from "some weeks" to ten or more years. The number of "attacks" varies between one and six to "many", some recurring at regularly stated intervals.

The pain of attacks rarely put the patient to bed, though it may occur anyhere on the right side, "mild" in one-third of the cases. The pain is frequently described as "continuous" or "side ache"

and made worse by exertion. Hypersensitiveness and tenderness are usual, and a "burning" sensation is frequent, but rigidly is not common.

Pain is usually located in the right iliac fossa, through it may occur anywhere on the right side, or at the umbilicus.

Tenderness at the scar of a previous operation is rare.

Temperature elevation is uncommon, subnormal temperature frequent.

Nausea is usual, vomiting rare, "indigestion" and "gas", frequent, with constipation present in two-thirds of the cases.

General abdominal ptosis is very common, iliac tumor, gas tumor, dilated cecum and gurgling in the right iliac fossa almost constant.

Skin changes are variable, and urinary symptoms occasionally present.

These patients are frequently spoken of as "neurotic" in the history, and complain of "neuritis" in various parts of the body, usually on the right side. Goiter was present in a small proportion of cases.

Blood examinations show leukocytosis absent, lymphocytosis rarely present, the Wassermann in the blood, negative.

Spinal puncture in nine of twelve cases shows increased tension. The Wassermann in the spinal fluid is negative in twelve cases.

There was lack of hydrochloric acid in the stomach contents in one-fourth of the cases examined.

Mucus in the stool is not common.

Roentgenoscopy shows ptosis, and delay at ileum or ascending colon.

Sections of the appendix show nothing characteristic.

Mesenteric glands, on section show simple hyperplasia, and cultures from same are negative.

At primary operation in forty-eight cases the appendix was usually small, and with fecal concretions in one-fourth of the cases.

There was free fluid in the peritoneal cavity in one-fifth of the cases and enlarged mesenteric lymph glands in one-fifth of the cases.

Ptosis, cecum mobile, Lane kink and pericolic membrane are not uncommon.

The primary immediate result of operation is very satisfactory, but there is usually a return of symptoms within the first year.

Trauma, pulmonary tuberculosis or "nervous shock" in some cases precede the return of symptoms.

Findings at Secondary Operation (in Nineteen Cases) by the Author: Adhesion of omentum or viscera to site of appendix is absent. "Adhesions" are uncommon; ptosis, secum mobile and various membranes are constantly present. Mesenteric lymph glands are found enlarged in one-third of the cases.

The remote results of various secondary operations are not encouraging: in twenty-seven cases, unknown, 2; improved, 9; unimproved, 15; death, 1. In sixty cases in which operation was not performed a second time, the results were: unknown, 8; improved, 16; unimproved, 36.

CONCLUSIONS.

Every case of so-called chronic appendicitis, that is associated with enteroptosis, constipation, and symptoms of nervous instability, should be looked upon as pseudo-appendicitis, until careful and painstaking study of the history and clinical findings prove it to be otherwise.

In patients unwilling, or unable, to submit to this careful differential diagnosis, the good repute of surgery demands that the facts, as to this uncertainty in diagnosis, and hence in the result of treatment based on such diagnosis, should be frankly presented to the patient or responsible relatives.

If it is then decided that the appendix shall be removed, the operation will be exploratory, a short cut to diagnosis, with the diagnosis and prognosis withheld until after the operation.

The diagnosis of chronic appendicitis presupposes as a rule, a previous attack of acute appendicitis.

Authorities state that chronic appendicitis may be chronic from the onset; and while this may be true in some cases, experience has taught me the advisability of giving very careful study to those cases in which the history of a previous acute attack is missing, vague or indistinct.

It is often impossible to determine the character of a previous attack of right sided abdominal pain, from the data available at a subsequent time, especially in view of the fact that cases of classical acute appendicitis with damage to the appendix demonstrable at subsequent operation, are many times entirely free from all symptoms for long intervals.

Hence the advisability of seeing the patient in

one of these attacks, the characteristic of which may clear up the case.

Cases characterized by more or less continuous discomfort in the right side of the abdomen, or of mild attacks of short duration, with brief intervals of relief, in which the pain is made worse by exertion and with relief on recumbency, associated with hypersensitiveness of skin and spasm of muscle, gas tumor, cecum mobile, gurgling, nausea but rarely vomiting, normal or subnormal temperature, no increase in leukocytes, constipation, enteroptosis, and evidence of nervous irritability, leading sometimes to chronic invalidism, are often not permanently relieved by removal of the appendix. Such cases should, therefore, be given careful consideration before operative measures are instituted.

An entirely satisfactory explanation of this state of affairs has not yet been presented, though intensive study suggests that a lack of balance between the vagus and sympathetic divisions of the autonomic nervous system may be an etiologic factor.

I have studied a number of these cases and attempted to classify and subdivide them according to Eppinger and Hess into; vagotonic and sympatheticotonic; but the results were unsatisfactory in that the distinctive points, between the two conditions are not constant, there being in nearly every case considerable overlapping of the characteristic signs and symptoms.

There is a third division of the autonomic nervous system, the "enteric system" of Langley, which consists of the plexuses of Auerbach and Meissner, though related to the two principal subdivisions, the vagus and the sympathetic still possesses considerable independence in the regulation of the function of the stomach and intestine.

This functional abnormality of the neuro-musculature of the intestine, brings us to a consideration of the hypothesis of Keith and of Alvarez concerning the most important but indefinite subject of intestinal stasis, which is too large to be taken up at this time.

The relationship of this condition under consideration to the hyper-, hypo-, or dysfunction of one or more of the endocrine glands is likewise a field of study which has, as yet, been merely hinted at. Though clinically conclusive results have not followed the therapeutic administration of the various preparations of these glands.

Much, in fact everything, remains to be learned regarding this clinical syndrome: but some progress in the right direction, will have been made if such a condition is recognized, considered in making a diagnosis, and thereby prevents ineffectual therapeutic measures, either medical or surgical.

DISCUSSION.

Dr. R. G. Sayle, Milwaukee: Mr. President, Ladies and Gentlemen. I have lived through, I was going to say, all the days of appendicitis, or the discussion of appendicitis, before the days of operation, and since it has become to be considered more a surgical disease. Up to ten years ago it was a constant subject for an annual paper in the State Medical Society, and nearly always in most every other society.

I have strong convictions on the subject, after having been born in the pre-aseptic non-surgical days, the day of opium treatment, and down through the application of some surgery, and later on its being considered a surgical procedure, and this is a summary of all of my convictions on the subject: speaking generally, the best results follow early good surgical treatment; this involves an early diagnosis and prompt submission to such treatment. The diagnosis requires some degree of skill. The operation requires considerable skill, judgment in the opening of the abdomen, protecting the general belly, and a safe delivery and removal of the appendix, or its non-removal, and the advisability of draining, the form of drain, and its employment.

We cannot safely state from the history and symptoms in a given case what the outcome will be, if left to itself. A grave outcome in an acute case of appendicitis is not heralded by the greatest amount of pain, tenderness, or muscular rigidity. Too few physicians have a good mental picture of what may be now present or impending in a case under observation; others have not the courage of their convictions, and are not positive with their patients. Stop the pain, is the slogan with many, and thus the danger is masked, and the opportune time delayed or lost. Physic and mouth medication and feeding are still risked. The so-called Ochsner's treatment, or mistreatment, is still a refuge for some good practitioners.

The operation is not to be classed as minor surgery. What is now an acute condition of an appendix may be superimposed on the most difficult intra abdominal tangle, one which will tax the skill of an experienced operator. Whenever the condition of the patient, aside from the disease in question, presents an operative risk, the slogan "Immediate Operation" becomes one for debate. Age, diabetes, pulmonary, cardiac, and renal diseases may lead us to trust to the skill of the expert anesthetist, employ local anesthesia, or perhaps modify the surgical character of the operation in given cases. I think the history, etiology, symptomatology, diagnosis and differential diagnosis, and treatment, are to-day well written. Ignorance, carelessness and dishonesty are in the way. Those are my conclusions in the matter for discussion.

Dr. Edward Evans, La Crosse: Mr. Chairman, Ladies

and Gentlemen of the State Medical Society. I am sure it is a pleasure on my part, and I am only voicing your sentiments when I say it has been pleasant to learn by Dr. Doege's paper that he is not only a close student but an earnest and critical one of the question of acute appendicitis.

I am glad to see that he operates at once on his cases; glad that he always removes the appendix when possible; I am glad to know that he is not afraid of a little spilled pus, and I am glad that he approaches the abscess in what I believe to be in nearly all cases the only sensible way, from the free peritoneal cavity.

Acute appendicitis is, after a third of a century, still an acute problem, its gravity apparently little understood, not only by the laity, but also seemingly by a great number of the profession. And I will give you figures in a few minutes which prove, I think, that I am right. Not only is the immediate mortality of acute appendicitis too high, but the complications following delayed operation have a very serious morbidity, as well as a too high real mortality percentage.

Socrates says that the Egyptians had a law that any physician who gave a physic before the fourth day of the illness did so at his own risk. If this were a law in Wisconsin, I wonder how many of us would be convicted of criminal misdemeanors. If we could only pound into the heads not merely of the laity, but also of a great mass of the medical profession, that those acute abdominal diseases that need a physic, are not injured by waiting, while those acute abdominal conditions that should not receive a physic are often rendered incapable of surgical assistance by that physic, we could escape a great deal of trouble.

When Dr. Doege asked me to discuss his paper, I had within the last ten days my record nurse look up the statistics of the last hundred cases of acute appendicitis sent to us at St. Francis' Hospital for operation, with the purpose of finding how many of those I was compelled to use drainage in, and I want to say that we do not use drainage unless it seems absolutely necessary; I believe I even avoid drainage where many surgeons would perhaps feel that they would not be justified in leaving it out. In those hundred cases we had a mortality of four, and you learn that operation in acute appendicitis should have a mortality of about one per cent. The first of those cases had been treated for typhoid fever for ten days; the second was a case of perforated appendix, and came in, in a dying condition; the third was a little child with high fever and very low leukocyte count, and seemed a very unfavorable risk; it was given a chance by an operation; the fourth was a case of acute perforated appendicitis, allowed to go on for several days, and brought in with general peritonitis. Of those hundred cases, the astonishing fact presents itself that I had to drain 48 of them. It seems an incredible thing. It seems a terrific impeachment of the care and attention given to cases of acute abdominal disease, as we ordinarily see them in everyday practice. But as I said before, no case was drained where it seemed possible to avoid it, and I only drain cases where there is raw surface left, not where a non-perforated appendix has a lot of creamy material in the pelvis. Two or three days ago we had 8 cases of acute appendicitis in the hospital, 5 of which had drains in them. Now why is not the diagnosis made earlier. I do not know, unless it is mental laziness, or cerebral inability, or something of that sort. I shall not attempt to say why it is not made; but I am reminded of a remark of Michael Angelo, when somebody, wishing to praise him, asked him one day why or how he mixed his paints to make such beautiful pictures, and he replied that he mixed his paints with brains. If we diagnosed our cases of acute appendicitis with brains I believe we would have fewer conditions such as I have pointed out to you to-day.

Dr. A. H. Levings, Milwaukee: I had my cases looked up a couple of days ago, that is, those that I have operated upon since the 1st of January. There were 53 cases of acute appendicitis, during all of the stages. By that I mean during the 1st, 2nd, 3rd and 4th day. No case was rejected for operation where the peripheral circulation was intact, or unless the patient's hands and feet were getting cold. These 50 odd cases were operated on without mortality, and I am of the impression that the mortality in acute appendicitis should be reduced to almost nothing.

I agree that the diagnosis of acute appendicitis is at times most difficult, and I am perfectly willing to confess that I at times go back to the patient a second time, or visit him the second time in the hospital before I am absolutely convinced as to the pathological condition. There are so many factors—in women the tubes, the ovaries, the uterus, or the right kidney in man or woman, infection of the gall bladder, infection of the kidneys. But when a diagnosis has been made I always urge immediate operation, and if the people hesitate I say to them, "Very well, you take the responsibility, not I; I think that now I can operate this case successfully, but if you want to wait the responsibility is yours."

I am not quite in accord with the paper in two perhaps very minor particulars. The Doctor says never to give a cathartic. I approach the operation for acute appendicitis with the greatest confidence if the patient's bowels have been thoroughly emptied, and if I see the patient in time I always have this done, for the reason that the operation is much easier if you can get a partially collapsed intestine. It is much easier to do your manipulations in the abdomen if you have a partially collapsed intestine than if the intestines are full of gas and fecal matter. And again, I think the results following operation are much better if the gastro-intestinal canal is empty. Absorption of this large amount of germ-containing material in the abdomen is much quicker gotten rid of if the intestines are emptied before operation. Aside from this I practically agree with the paper.

The manner of the incision is of but little moment. I think in my cases all but two or three were drained.

In regard to its being a reproach upon the medical men that we find pus in the abdomen when we come to operation, I may say that I have seen a gangrenous appendix in two hours after the first inception of symptoms. I thank you.

Dr. T. W. Nuzum, Janesville: With regard to the bacteriological cause of appendicitis, it occurs to me that the appendix is quite capable of taking care of its bacteria, if it is not obstructed. I have never seen a case of appendicitis where there was not some obstruction present. I believe that it is just as capable of taking care of its bacterial flora as any part of the intestinal tract, with the only condition that drainage into the colon is present. Therefore, I regard appendicitis as practically always an obstructive disease.

Dr. R. H. Jackson, Madison: Ladies and Gentlemen: In the first place, I wish to thank Dr. Connell for the great frankness with which he has detailed the cases in which his operative procedure failed to relieve the symptoms for which the patients sought relief—would that more of us had acquired this habit! Most assuredly there is a great field for improvement neglected by ignoring or passing by without comment the cases which fail to make ideal recoveries. We all have them, probably in a far greater number than we suspect or are willing to admit. The younger the surgeon in years of experience the more apt is he to take umbrage at the slightest criticism as regards his diagnosis, operative findings, or results. Having gathered experience, sometimes bitter experience, the more charitable towards others and less confident in his own powers of making an absolute diagnosis does he become. Especially is this so as regards the diagnosis of a chronic appendicitis accompanied by the usual assurance to the patient that the removal of the appendix will result in immediate and lasting relief of symptoms.

The surgeon who has through manifold experiences arrived at the point where he knows that there are many other conditions aside from an offending appendix which may cause pain and tenderness in the right lower quadrant of abdomen is more chary in his diagnosis and advice. Leaving out of consideration the large class of cases with well marked histories of recurring attacks of acute appendicitis verified frequently by the statements of the attending physician, together with the almost equally large class of cases where disease of the gall bladder or duodenum as well as the appendix is brought to the fore by the symptoms and physical findings, there are a not inconsiderable number of patients with typical histories of digestive disturbance due to pylorospasm associated with a marked tenderness at McBurney's point, in whom removal of the appendix results in entire relief of symptoms. Many of these cases do not give a history of acute appendicitis in the past so that I cannot agree with Dr. Connell's conclusion that "The diagnosis of chronic appendicitis presupposes a previous attack of acute appendicitis".

I am satisfied that chronic appendicitis is a distinct disease entity. Believing, as I do, that the vermiform appendix is undergoing in the individual from the time of birth to old age a process of atrophy, degeneration, and replacement fibrosis, Nature's effort to rid the body of a useless part. When the process begins at the tip of the appendix and advances in a uniform way to the base, the result is the so-called fibroid appendix or appendicitis obliterans. While many individuals are entirely free from symptoms, a certain number will have more or less neuralgic pain and tenderness in the region of the appendix with attendant gastro-intestinal disturbance. While the number of cases of acute appendicitis seems very large indeed, it is in reality quite small compared with the multitudes in whom the appendix undergoes marked fibroid and obliterative changes without or before giving rise to acute symptoms. In other words, that cases of acute appendicitis may be looked upon as accidents or errors in Nature's work and are largely attributable to the localization of infection in an appendix which has been irregularly and incompletely obliterated previous to the acute infection. Finally we come to the class of more or less neurotic cases in which there is, to use a slang expression, "something fishy" both about the history and the physical findings. With sufficient experience it is possible to almost immediately sense these cases. This is doubtless due to the subconscious association in the examiner's mind of something disagreeable in the past which is brought to the surface either by the hypersensitiveness to the examining finger or the shad-like shape of the abdomen recalling similar cases in which removal of the appendix did not result in a grateful and satisfied patient. What then shall we do with these cases? I agree with Dr. Connell that the good repute of surgery demands that a most careful examination and differential diagnosis should be made and where difficulty is found in clearly establishing the diagnosis of chronic appendicitis, that the patient or responsible relatives should be informed as to the doubt which exists and as to the possibility of there being other conditions which will be an explanatory one. Bearing in mind the present which may or may not be relieved by operation, possibility that

1. There may be no pathological lesion demonstrable at operation, either in the appendix or elsewhere.
2. That there are several distinct pathological conditions which may and frequently do exist in these cases and unless deliberately looked for by the surgeon will escape detection and correction, especially if the operator's mind is fixed on an appendectomy. While there is room for discussion pro and con—as regards
   1. Jackson's Membrane.
   2. Lane's Kink.
   3. Megacecum, etc.

I am satisfied that they should always be looked for and attended to, thus diminishing to a decided extent the number of dissatisfied patients. Moreover in all cases when there seems to be a lack of pathology in the appendix and adjacent parts I made it a rule to pull out sufficient of the terminal ileum to make sure there is not an adherent Meckel's diverticulum and to look for all other possible sources of pain and tenderness in the right lower quadrant such as impacted ureteral calculus, pelvic trouble, incipient hernia, etc.

It is surprising how frequently neurasthenics will reveal interesting pathological conditions. As to the question raised by Dr. Connell of the existence of a distinct disease entity with a clinical syndrome which simulates appendicitis and yet which is not true appendicitis but psuedo-appendicitis, I should hesitate to make such a diagnosis. Indeed I do not see how with our

present means of diagnosis it would be possible to do so without resorting to the exploratory incision which of course is thus made a diagnostic aid.

This it is which Dr. Connell wishes us to emphasize to the patients or relatives before operation and thus entrench ourselves both individually and collectively as surgeons against the future remarks of the dissatisfied or disappointed ones.

Dr. A. A. Hoyer, Randolph: The question often asked by the laity is this: Why are there so many cases of appendicitis? Dr. Connell in his paper can prove to you that 20% of cases were not appendicitis before the operation or at the time of the operation.

The conception of chronic appendicitis as a disease is most confusing. Its classification as a disease is still more indefinite. Morley calls attention to the frequent errors in the diagnosis of chronic appendicitis. Lango does so in a similar paper. He makes a mention of pseudo-appendicitis. Ruthkevitch concludes that there are no diagnostic signs of chronic appendicitis.

During an operation for appendicitis (chronic), Dr. Crile brought forth the following comment: When operating for chronic appendicitis, we like to see a red, thick, adherent edematous appendix, because it confirms the diagnosis and relieves the feeling that another lesion has been overlooked. If there are no diagnostic signs of chronic appendicitis clinically, why use the term chronic appendicitis? If the surgeon does not find sufficient evidence that this organ is diseased, why classify it as chronic appendicitis? It has been suggested to group diseases of the appendix which are not acute, as sub-acute, recurrent and obliterative. Each form has some definite clinical symptoms and each form can be classified during the operation or later.

Dr. Connell in his paper, contends that that so-called chronic appendicitis, coming under classification E, are cases of pseudo-appendicitis in 20% of the cases. Appendices, which after removal, show no pathology. Patients who have been operated upon, are not free from symptoms after the operation, and furthermore conditions aside from appendiceal troubles have been demonstrated at subsequent operations.

Walton reviews 67 cases of general ptosis in which the diagnosis of appendicitis had been made 29 times. 16 chronic and 13 acute cases. At operations in all cases, the appendix was found free from acute inflammatory change and in the majority of cases the appendix was perfectly healthy in appearance. 30% is rather an alarming percentage of mistaken diagnosis. In each case, he was able to demonstrate intestinal stasis as the causative factor in these so-called cases of appendicitis, another series of cases which must be termed pseudo-appendicitis.

The topic of pseudo-appendicitis, as outlined by Dr. Connell should arouse earnest and thoughtful consideration by both clinician and surgeon. Incorrect diagnosis of these cases should not be wholly placed upon the clinician. Needless removal of this organ should not be blamed upon the surgeon alone. Hasty diagnosis, incomplete histories, lack of literature and meagre statistics have in part been responsible for these errors in diagnosis and treatment of so-called chronic appendicitis.

Goldthwaite insists that in treating patients with chronic conditions in the intestines, the body should be considered as a whole and that the individual symptoms, referring to an organ, should be interpreted in the light of the condition of the whole individual.

A new field for the clinician and general practitioner for these cases has paved its way. He will be called upon to treat cases which have not been relieved and are not relieved by operative measures. Henceforth, differential diagnosis for chronic condition in the region of the appendix, must include the following possible ailments: Intestinal stasis due to a general ptosis, cecum-mobile, Jackson's membranes, Lane's kink, spastic incompetency of the illeo-cecal valve, various neuroses and last but not least, with due deference to the author, pseudo-appendicitis. The surgeon in turn will hesitate to remove an appendix which has no pathology and explore the abdomen for a more definite and possible disease other than chronic appendicitis.

The society is indebted to Dr. Connell for this excellent treatise. May he have the pleasure of receiving added information and statistics from both clinician and surgeon, enlarging upon the scope of this most important subject.

Dr. Karl Doege, Marshfield: I would think, with Dr. Jackson, that there are cases of chronic appendicitis in which no previous history of an acute attack can be elicited. We know that occasionally a perforation of the bowel may take place, due to an ulcer, that undoubtedly has existed in the patient for quite a period. A person may have an ulcer of the bowl and not complain of any symptoms. I also believe that he may have an ulcer or an infection of the appendix and may not complain. It is anatomically correct that this should be so, because as Lennander has stated, there are no sensory nerves in the bowel, nor in the visceral peritoneum, and considerable lesions may be present without subjective recognizable pains. This would explain some of those fulminating cases of acute appendicitis.

One of the previous speakers mentioned a case of gangrenous appendicitis occurring within two hours. It is not likely that that case had existed but two hours. I have seen cases of perforated appendicitis, apparently starting with the perforation. It is not likely that that was the beginning of the attack. I believe, and Sonnenberg has proven, that there may be small lacerations or small perforations in the mucous membrane of the appendix existing for some time, which may get well, and only a microscopic examination will reveal its existence. These acute perforations of the appendix coming on within a few hours after the beginning of the attack, are really old lesions in the appendix which just at that moment, for some reason, have broken through, and start in with the acute peritoneal infection.

I also believe that to remove the appendix in chronic appendicitis is not all that we should do. If there is a lesion in the appendix, and if by virtue of the nerve supply of that region we are unable to recognize the very beginning of this trouble, then simply to remove the appendix would not be all that is necessary. We know

that, as Lennander has proven, it is the pulling on the root of the mesentery that causes the trouble, and I can conceive that microscopic scars or kinking or a shortening and blocking of the lymphatics leading to the mesentery form a complex of symptoms which we recognize clinically as chronic appendicitis.

BETTER SERVICE IN DIPHTHERIA DIAGNOSIS.

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There is, perhaps, no test made by public health laboratories which is of more value to the average physician and to the community than is the examination of throat swabbings for the Diphtheria Bacillus. Certain it is that there is no other diagnosis a physician needs in greater haste than a positive or negative diagnosis of diphtheria. The importance attached to this type of examination by the physicians of Wisconsin is evidenced by the fact that over a fifth of the work done in the State Laboratory of Hygiene is in making tests for the diagnosis and release of suspected cases of diphtheria.

During the past several years it has been the practice of the laboratory to send to physicians an outfit consisting of a double container enclosing a sterile swab in a test tube. This swab was to be rubbed over the infected areas, replaced in the tube and shipped at once to the laboratory. Here it was swabbed over suitable culture media which was subsequently incubated at body temperature until a sufficient growth of bacteria accumulated to be looked at under the microscope. Under this system it usually took from two to four days for a diagnosis to reach the sender of the specimen; i. e.: 24 or more hours for the package to reach the laboratory, 18 to 24 hours for incubation, and, in case only a written reply was requested, another 24 hours for the report to return to the physician. This delay made it impractical to use the swab as a true diagnostic aid: it served merely as a confirmatory test, although in release culture it was effective, though slow.

For some time the State Laboratory had contemplated a change of methods, but it was not until the first of August, 1916, that a new procedure was put into practice. After five months under the new system, conclusions as to its efficacy seem justified.

The diphtheria outfit, as now sent out, comprises two small tubes of culture media labelled respectively "Throat" and "Nose", and a large tube containing two sterile swabs. With these materials the physician is requested to make one throat swab and one nose swab, rubbing the swabs over the media surface of the appropriate tube at the time of taking. The object of this is to enable the growth of the bacteria to start in transit. How far this growth will progress before the specimen reaches the laboratory depends upon the interval of time and upon temperature of the surrounding atmosphere. It was not expected that in many cases sufficient growth for immediate diagnosis would be found, but it was hoped to shorten materially the necessary period of incubation at the laboratory.

At the present time the laboratory is still receiving many plain swabs from physicians whose stock has not yet been depleted. However, the majority of the throat swabs now come in on culture media, and a study of the results obtained follows.

During the months of November and December, 1916, there were received 497 throat and nose cultures, 187 of which were for diagnosis, 310 for release. Of these it was possible to give a definite diagnosis, immediately on receipt, upon 50, or 10%, much more than had been anticipated; 372, or 74%, were diagnosed after only a brief incubation of 8 hours; the remaining 75, or 16%, had to be left for 18 to 24 hours in the incubator before a final decision could be made. Without giving further details this simply means that during two of the cold months of the year it was possible to save a total of 7,152 hours on 497 cultures for diphtheria diagnosis. This saving, which amounts to an average of 14 hours per culture, is of direct benefit to the physicians of the state and especially to the communities in which the disease occurred. In no case has a diagnosis been forced, that is in all cases the cultures were incubated until such time as an abundant growth gave surety that final results were being obtained. With such an appreciable saving of time during the cold months, it seems reasonable to suppose that during the warmer months the average time saved per specimen will be much greater. (During December about a dozen frozen cultures were received. It was manifestly impossible to expect a growth on these before

a 24 hour incubation.) When it is considered that the success of treating diphtheria with antitoxin depends almost entirely upon an early administration, the saving of an average of 14 or more hours on each diagnosis is seen to be a decided step in advance.

Another result that has been watched with interest has been the advantage of examining nose cultures. During the two months mentioned before (November and December, 1916) there were found 36 positive nose cultures out of the 201 nose cultures received. (17.9%.) Of these, 27 accompanied positive throat cultures. These latter would have been diagnosed positive by the throat cultures alone, but it is significant to note how frequently the nose, too, is a source of danger and should be subjected to treatment. In 9 cases the nose culture was positive when the throat culture showed absolutely no diphtheria organisms. Of the 9, eight cases were for release, and one for diagnosis. This latter was a case which had been under way for 6 days without a clinical diagnosis. In two months, to keep eight cases from going out from quarantine still haboring virulent Diphtheria Bacilli in their noses, and to make a definite diagnosis in an unsuspected case, surely makes the examination of nose cultures worth while. It is not at all fanciful to suppose that a considerable amount of the diphtheria in Wisconsin during the past may have come from just such overlooked cases.

When the new method was introduced, there was some apprehension lest the amount of contamination incident to so much handling of the media would offset the value of having the cultures mature more rapidly. Fortunately this has not been the case. Out of the 497 cultures studied, only 37, or 7.5%, were contaminated. As some of this contamination was due to a few tubes of faulty media, it seems logical to assume that the actual contamination of media in transit and in handling is no greater than the contamination of the swabs which were formerly used.

Another objection made, when this method was first proposed, was that much of the media would dry up and become worthless lying about in physicians' offices. It is probable that considerable deterioration will take place, but two means of obviating this disadvantage and loss have been tried. First, the regulation package has been reduced from six specimen containers to three. This has been misunderstood by some physicians who did not seem to realize the necessity of the measure. The State Laboratory of Hygiene is always willing and prepared to ship any number of containers actually needed by any physician if the unusual circumstances are made clear. In ordinary cases the three containers are all that is necessary, and all that the physician can use before the media dries. The introduction of parafined cork stoppers instead of rubber capped cotton plugs is the second means taken to eliminate deterioration of the culture media.

Not only does this new procedure mean more work for the laboratory, in looking over a double number of cultures, in filling extra tubes and making extra swabs, but it also involves considerable additional expense. It costs the laboratory about forty-five cents to put a package of three outfits in a doctor's office. The mailing cases when undented and the tubes when unbroken, can, of course, be used again. However the initial expense and the upkeep are appreciably greater than with the old form of container. This expense is made the greater when physicians fail to use both throat and nose tubes and when they neglect to return the large swab tubes. It is to be hoped that the medical men of the state will be sufficiently interested in the laboratory's efforts to use and return the materials properly.

In conclusion: It is felt that this new method of sending out culture media has raised the efficiency of the laboratory (1) by greatly reducing the aggravating time element in diphtheria diagnosis, (2) by revealing unsuspected nose infections. It is believed its value to the state and to the individual communities has been proven by enabling an earlier quarantine period and an earlier administration of antitoxin.

According to the State Board of Health, baby blindness in Wisconsin has practically been stamped out since the law requiring that physicians report all cases of ophthalmia neonatorum to public authorities and appropriating funds for the purchase of silver nitrate went into effect. The 1913 legislature made an appropriation of $1,500 per year for the purchase and distribution of a one per cent solution of silver nitrate, and since that time but three cases have been recorded. In one case the child lost the sight of one eye and in the other two cases a quite complete recovery was reported. All three physicians were prosecuted for failure to use a one per cent solution of silver nitrate, as the law requires.—*National Committee for the Prevention of Blindness.*

INDUSTRIAL WELFARE WORK AS APPLIED TO RAILROADS.*

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Some years ago a distinguished English writer precipitated almost a world-wide controversy by discussing the question, *"is life worth living?"* It is safe to say that the decision was in the affirmative. To-day if the same writer were to discuss the question, *"is life worth saving?"* the vote would be in the affirmative without any discussion.

The civilized countries of the entire world are to-day working out a comprehensive system for the effectual elimination of a great part of the immense economic loss that follows inefficient protection of their people from preventable disease, injuries, and unnecessary death. In Great Britain it has been estimated and defended in debate, that thirty per-cent. of the pauperism may be attributable to sickness. Holland, Austria, Bohemia and Italy, each to a lesser degree, have worked out a partial solution of this economic problem, and the United States through the different Workmen's Compensation Acts, together with the great *"Safety First"* movement of different industries, is doing a work of inestimable value toward the elimination of needless waste of human life and limb, which in past decades has cost the state, the municipality, the employer and the employe many millions of dollars annually, by what, to-day, is known to be preventable.

Employers of labor have devoted the keenest analysis to this subject, and the brainest and most far-seeing of them are most active in health movements among their employes, and in the development of health departments as an important part of their great industrial organizations. Many large industrial enterprises have developed just as efficient departments of health as are to be found even in the most advanced municipalities. The per capita expenditure for health in some of these industrial groups is greater than the per capita expenditure of the average efficient municipal health department, and, further, there is this advantage in that the result reaches more directly the individual who needs it.

There is no form of organization which is so wonderful, or so complicated as that of the railroads, especially the American railroads, and it is because of these peculiarities that we, as medical men, have before us the greatest field for the greatest of all work—the conservation of men. *The especially qualified and practically trained employe is the greatest asset of the modern railroad manager, and it is realized that the greatest efficiency results from the best protection of the health and the activity of the experienced employe.* It is very expensive to thoroughly train a man for railroad service, and that system which will enable the well trained employe to work the greatest number of days in a given year, as well as keep him in the best state of physical efficiency is of the highest importance.

The following quotation is from an eminent member of the medical profession, Dr. Osler, formerly of John's Hopkins University.

"Within the past three centuries, the average working life of the English speaking men has doubled. In Shakespeare's time, the fifties were venerable; Admiral Coligny, murdered at fifty-three, is described by his contemporary biographer as a very old man. Now, when we hear of death in the sixties, we instinctively feel it an untimely cutting off in what should be a fresh and vigorous age, and even at eighty, it seems but just fair ripeness for the sickle.

The three factors which have wrought this change are, Advanced Physical Comfort, Medicine and its handmaid, Hygiene, and Surgery. And in the mitigation of the frightful mass of actual pain, of physical torment, which has racked every age down to the present, and which has scarcely been alleviated till the past century, medicine stands incomparably first."

In substantiation of his statement I will say that in the last fifteen years there have been many railroad employes retired on pension, many of whom were seventy years of age, and some still living who are less than ten years short of one hundred.

A biblical limit of three score and ten will eventually be the natural heritage of every man, and the railroads, with the assistance of the medical departments and company surgeons, are engaged in an earnest effort to bring about this condition as promptly as it is possible so to do.

The suffering and sorrow due to either sickness

*Read before the Milwaukee Medical Society, Nov. 28, 1916.

or accident is alone sufficient to enlist the sympathy of the most indifferent, but, aside from this, the expense of sickness and injury to the company and the loss of wages to the men is enormous, and if there were no other reasons, the necessity for operating the road at a minimum cost would alone be sufficient to justify the great work in science and safety tending toward the conservation of men which has been so earnestly undertaken.

The enumeration of one hundred and forty-one kinds of injuries, to say nothing of the myriad of diseases, implies an equal number of different kinds of treatment, and it is very necessary that the treatment shall be scientific and right, for it is not only immunity from suffering that the management of a railroad is striving for, but also for a minimum disability on account of sickness and injury. Thus, if a man fractures his knee, breaks his leg, sprains his arm, dislocates his shoulder, twists his back or sustains any other kind of injury, and his recovery is dependent upon proper treatment, that is just what the management wants him to receive. For a poor job on a fractured leg, or any other maltreatment, extends the period of disability and increases the liability, to say nothing of unnecessary suffering. On a great railroad system, employing one hundred thousand men, of whom a large percentage are injured or reported sick annually, the necessity for scientific treatment is imperative.

The idea of a large industrial organization having attached to it a department which has to do with the medical and surgical care of the employes, is far from new, either as applied to railroads or other industries, but to anyone who will investigate this subject from its beginning, the remarkable growth and development that has taken place, especially in the last several years, as regards such a department, is truly wonderful. Not only do these departments have to do with the sick and the injured employes, but latterly that which is of far more value both to the employe and the industries has received great attention and study, namely, prevention. Prevention not only of accidents, but, what is of more importance, prevention of diseases and prevention of the more serious conditions and possible complications by the earliest recognition of a beginning disorder, and by prompt scientific and efficient treatment.

Ours is the duty to prevent that great economic waste which inevitably results from the failure of an individual to place about himself certain safeguards which will protect him from pernicious habits and diseases. Independently perhaps, our profession cannot accomplish definite results in the great industrial and economic world about us, but as educators and directors of the controlling influences in this world, our assistance can become of such importance that it becomes essential in the modern industry.

In the medicine and surgery of to-day we find that this is the age of specialists, and, just as in the industrial life, organization is necessary in order to produce definite results.

One of the great problems confronting the railroads to-day is that of conservation of its employes, with the raising of the standard of efficiency. It is now a well-recognized fact among the managements of the railroads that it is just as important to care for their sick and injured as it is to maintain a certain standard of efficiency or perfection of their rolling stock and road bed. The state governments as well, are also seriously considering the importance of this fact, and are endeavoring to co-operate with the different corporations toward this end.

Certain standards must necessarily come sooner or later. Whether we have reached this time or not it is impossible to say, but it is certainly worth while to make a trial, or perhaps I should more properly say, to commence the campaign for higher standards. Leaving aside the question of wages, which we have nothing to do with except in an argumentative way, we come to a desired condition of the industrial worker which promises to lead to the best results. In the first place the man should feel well and he should be free from worry and anxiety. The first consideration is proper housing, where the best sanitary conditions may be developed, and where a man can feel the environments of a home. These conditions are fundamental and it should be the province of the corporation, as it is in Europe, of the Government, to inspect the environment of the working classes, so that desirable conditions may be maintained that will contribute to the health of the workmen. Of course in the higher class of workmen, such as men having charge of trains, such inspection would not be necessary because as a rule these men would be quite able to order their own environment.

Another step toward efficiency lies in the direction of physical examinations with reference to determining the approach of disease in its incipient stage, for instance: Bright's disease, diabetes,

arterio-sclerosis, cancer, tuberculosis, etc. These examinations should be made by men selected for their skill in physical examination and diagnosis. There should be an understanding also with the workman that this examination is not for the purpose of preparing him for the "scrap pile", but for the purpose of maintaining a condition of bodily health that will materially prolong his working days, together with a higher degree of earning capacity and efficiency.

Different railroad corporations have given this subject profound thought for many years, and much time and money have been spent in an effort to bring about the best methods to ensure the greatest welfare to the employe, and at the same time derive the greatest economic benefit for themselves.

Two general methods have been in use for some years by forty-two representative railroads of this country, with the general predominance in favor of the hospital organization, where the men themselves contribute a certain monthly amount toward their maintenance. Twenty-four of the forty-two railroads are to-day using the hospital organization, some of which were established as long as fifty years ago. This was primarily brought about on account of a certain number of these roads running through a very sparsely settled country, where settlements and doctors were few and far between, and where there was no hospitals and where it was found that men often suffered and sometimes died because of lack of immediate and proper care. By a small contribution by the men they were enabled to receive the proper care by good men, and to enjoy the comforts that were necessary toward their well-being, and with but small cost to themselves.

The other eighteen roads employ surgeons and hospitals and treat their men for occupational injuries, paying all bills for such treatment and care without the small monthly assessment contributed by the men. There have been many arguments, by learned economists, both for and against each method.

So many questions economic, political and social, enter into the matter of how far a railroad is in duty bound to furnish surgical and medical aid to its employes, on account of the many different compension laws of the various states through which a railroad may run, that to arrive at any definite conclusion at this time seems to be almost an impossibility.

The benefits to be derived from a hospital organization, on account of the services rendered to the employes of the railroad by the surgical and medical forces, as well as from the standpoint of the corporation, can be considered under four general heads.

Humanitarian—a. It is a well known fact that many of the diseases from which workmen suffer, can be treated in their incipiency by well regulated hospital methods and by skilled men with instruments of precision that will bring about, if not a cure, a very natural prolongation of life and a period of working efficiency, for instance: in diabetes, where under favorable conditions control over patients can be maintained, the degree of tolerance can be determined. This and many other diseases, when not detected in the early stages, on account of the undermining process of the health of the individual and consequent lowered efficiency, may frequently be the cause of accidents.

b. When sickness or unavoidable accidents do occur, the patient is enabled to receive attention and comfort which might be impossible if he were left to his own devices.

c. It relieves him of a financial strain, thereby giving him mental comfort which would frequently materially shorten his period of suffering.

Economic—a. It so often happens that a home environment, even of comfort, is unfavorable in a continued sickness, and the expense of a prolonged illness, where it becomes necessary to secure the services of a nurse, is so great that a typhoid fever, for example, might absorb the surplus earnings of a year, and produce a degree of worry and anxiety that would lessen materially the workman's efficiency.

The question of hospital care for the employes in the case of sickness is just as important as the question of hospital care in case of injury. We have come to the time when we recognize that the saving of a part of an arm or leg may be of material value, or the saving of a partially crippled arm or leg may be of very great value to the injured workman, and this saving may only be attained under the best hospital surroundings and in the hands of the best trained men in emergency surgery.

The question of efficiency is not alone a question for the corporation and for the workman, but it is a question for the general public. The state gains

whenever a sick workman can cut short his sickness and can resume his place, not only so far as he, as a workman, is concerned, but also his family, because sickness under any condition is more or less of a burden upon the public. It is likewise of importance to the state that the number of cripples should be reduced to the minimum.

b. It has been estimated by certain railroads that it costs five hundred dollars to train an employe before he becomes a thoroughly safe and efficient workman and able to be trusted with the safety and lives of the traveling public. The saving of the life and limb of their trained employes naturally reduces this cost as well as prevents injury to passengers and destruction of property, on account of mistakes of the inexperienced.

c. Proper treatment naturally shortens disability and therefore works a saving by getting the efficient man back to his duties early.

d. It prevents the financial burden of the fellow employe which is often occasioned by neighborhood assessments on account of sickness and want caused by the financial strain brought about by long drawn out illness.

e. It serves to keep the sick employe out of the hands of unskilled doctors who make improper diagnosis and render improper treatment, thereby neglecting the illness and causing heavy financial strain by their neglect and in many cases complete failure of recovery.

Ethical—The charge of contract practice is frequently brought against the railroad service in hospital organizations. Could not this same charge be brought against some of our most profound research workers in scientific institutions or the medical man in the United States Public Health Service at Washington, or in the Marine Service, all of whom are working for a salary, and who have brought about such brilliant results at Havana, Panama, and many other tropical cities, and have made the building of the Panama Canal possible, as well as prepared the way for the commerce of the world?

What is there so peculiar in the training and work of the medical man that his services are not to be governed by the same laws of Society as those of his fellow man; why should the profession of law, the ministry, architecture, engineering, and in fact all other fields of human endeavor be regulated by one ethical and social code and the medical profession by another? To my mind there is but one reason why medical men have not taken the place in that larger sphere of human activities, to which they are entitled, and that is because of an apparent objection on their part to create and keep for themselves a definite field. As a working part of the great industrial world the fundamental reason for this is to my mind based upon a single cause—sentiment. Is it not true that there is hardly a physician in any of the smaller cities or towns that would not appreciate an appointment as surgeon for a railroad?

The charge has also been brought that the surgeons holding railroad positions were of an inferior class. In a canvass of one hundred president's of county societies in Illinois, one of the questions asked was "Do doctors in general consider the acceptance of railroad appointments ethical?" Ninety-eight per cent. replied in the affirmative.

Another question was "What class of doctors have railroad appointments in your community?" The replies were as follows:

Good	52%
Best	38%
All classes	10%

Another question was "Are they considered leaders in the community?" Replies were eighty-four per cent. in the affirmative. Another question was "Are they Society members?" Ninety-four per cent. replied in the affrmative.

It would therefore indicate that railroads generally select the better class of surgeons and physicians in practically every community.

Sociologic—It is bound to have a good effect upon the morale of the men; a beneficial effect on his family and on the community. The better the man, the better the citizen, the better the citizen the better the community, and every community has its effect upon the prosperity of the state. Is it not a fact that the efficient worker who is able to bring a competent living to his family is enabled better to educate his children and to keep them out of factories at an early age where they are bound to come in contact with undesirable environments during the formation period of character, and through neglect, remain in the more humble walks of life, all of which tends to contribute to the lowered tone of the community?

The benefits to be derived from the above may be summarized as follows:

THE STANDPOINT OF THE EMPLOYE.

First: He is protected from unethical medical men.

Second: He receives the very best attention where he otherwise might neglect himself.

Third: He is furnished in general the very best class of surgeons.

Fourth: He has the benefit of consultation and hospital treatment where otherwise he probably would not receive suc hadvantages.

Fifth: He is *assured* hospital treatment.

Sixth: In most cases the disability and time lost is much reduced.

THE STANDPOINT OF THE COMPANY.

First: Reports are often received which give valuable information for the benefit of the company and the employe.

Second: The surgeon and the employes are more loyal.

Third: They have more skilled surgeons than they would ordinarily have if the care of the patient was left to chance, or to the patient's selection.

Fourth: Men are gotten back to work when they are able, and there is less malingering.

Fifth: The patient is less liable to fall into the hands of unscrupulous lawyers.

THE STANDPOINT OF THE DOCTOR.

First: The pay is sure and prompt.

Second: His position as company surgeon inevitably leads to the acquirement of private patients, both connected and unconnected with the corporation.

Third: He becomes possessed of certain transportation conveniences.

Fourth: The extension of his professional horizon carries with it increased work, enhanced skill and enlarged acquaintance.

Fifth: He has access to X-ray and research laboratories and consultations with the best medical men in the country, thereby protecting the patient and himself, thus enabling him to do better work.

In addition to the above limited discussion of the ways and means for conservation of life and limb and the general well-being of the railroad employe, there is one other subject which is somewhat irrelevant to all the above, but which I cannot refrain from touching upon briefly. It is a matter of great importance to the railroad from a humanitarian, as well as an economic standpoint, and that is the needless waste of life that takes place annually among trespassers, and for which the railroad corporation is in no way to blame.

Is it not somewhat paradoxical that two of the European countries that have been foremost in the passing of laws for the welfare of mankind as to increasing his efficiency and prolonging his life, are to-day engaged in the most ruthless sacrifice of human life?

Does it not also seem that our law-makers who are so active in the passage of Workman's compensation Acts, with the intended benefits to mankind, are frightfully behind the times when the immense loss of human life takes place from this one cause annually? Nearly every state, county, and municipality is overly active in the passing of laws and ordinances compelling the railroads to elevate their tracks, and to adopt elaborate means of safety appliances, and at the same time they close their eyes to one of the greatest drains on humanity.

Admitting that the agitation of the subject is of comparatively recent origin, it cannot be truthfully said that our law-makers are ignorant of the appalling facts. That they know the use which thousands of people make of the tracks of our railroads, and also are aware of the danger which such use involves, is demonstrated by the records of a large number of the state legislatures, which clearly show that the law-making authority has been approached repeatedly ard the statistics presented. In many of the States no positive action has been taken to remedy this evil. In the very few instances where legislation has been affected, the statute has been wholly inadequate to accomplish its desired end, as it has been enforced, if at all, in a half-hearted manner. The testimony of the agents who have sought to prosecute trespassers in the courts of law, reveals either total failure or

but the slightest success. As the inevitable results of legislative inaction, the habit of trespassing on the railroad property is growing with leaps and bounds.

We must face the amazing fact that in nine years fifty thousand trespassers on the right of way of the American railroads have met with a horrible death, and few seem to be aware of it—or if aware were too busy with their own affairs to pay attention to so hideous a slaughter.

Only a small percentage of this vast loss was comprised of members of the so-called tramp, or hoboe class, but was made up of useful young men, women, and children who were permitted to sacrifice their lives, bringing sorrow to their homes, with added great expense to the family, or perhaps limited means, and a tremendous expense to the railroads.

To the legislature of Illinois, a well intentioned and temperate, but inadequate statute has been presented, dealing with this tremendous problem. Let us hope that even this will speedily become a law and that other states will immediately fall in line and that the railways of this country shall be freed from the approbium of this slaughter which is all so unnecessary, and for which the railroads should be held blameless.

LIP-READING FOR THE ADULT DEAF AND HARD-OF-HEARING.*

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MILWAUKEE.

A conservative estimate places the number of adventitiously deaf and hard-of-hearing persons in the United States at three million; that is, probably three in every one hundred are in need of some supplementary aid for deficient ears. To the great majority of this number, such deafness has come sometime after the twelfth or thirteenth year.

There are two classes of the deaf to whom lip-reading is a boon. The first includes all types of the congenitally deaf and those who have lost all hearing so early, that speech has been forgotten. The second embraces those that have become deaf after speech has become definitely acquired. Upon the first class I shall not dwell much further. The State of Wisconsin is in the lead of all other States in its educational care of this group. Besides, there is a vast difference in teaching lip-reading to the congenitally deaf and to those whom we shall call the adult deaf and hard-of-hearing. The former must be taught voice production and articulation simultaneously with speech-reading and be given education through this medium. "The adult deaf simply learn to read on the lips, words and expressions that are already familiar," says one very successful teacher of the adult deaf who thus defines the difference, "In teaching adults and children, the real difference lies in the fact that an adult is taught through his mind, while a child, we might say, acquires his mind through his training."

My purpose here is to speak of what lip-reading may do for this second class of the adult deaf, to release them, in an increasing measure, commensurate with effort, from the isolation and handicap that deafness imposes.

The teaching of lip-reading to the adult deaf and hard-of-hearing includes the training of the eyes and the mind. It is both a physiological and a psychological problem. The eyes must be trained to be, first, accurate; second, to be quick; third, to retain visual impressions and fourth, to do their work sub-consciously. For a moment may we consider how much the eyes can do, what are their limitations and then after that, how the mind can supplement the eyes.

The eyes encounter certain difficulties in their effort to read speech from the lips; first, the obscurity of many of the movements. Many of the sound movements are made inside the mouth and throat and must very often be told from the context of the sentence. For example, in the sentence "Isn't it a nice day?", 73% of the sounds are obscure, while in the sentence, "What beautiful weather we are having," only 41% are obscure. In ordinary speech, over 40% of the sound movements are obscure; second, the homophenity of many of the movements. Just as to the hearing person there are groups of words that sound exactly alike, but vary in meaning, so to the speech-reader there are groups of words that appear exactly the same upon the speaker's lips, but have different meanings. Mr. Nitchie, who is the principal of the New York School for the Hard-of-Hearing

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*The writer desires to acknowledge her indebtedness for many points incorporated in the above article to Mr. E. B. Nitchie's "Principles and Methods of Teaching Lip-Reading".

and author of a widely used text-book on "Lip-Reading , its Principles and Practise" has just recently published a list of homophenous words including over 2,000. In the list of two words in a group, he has 636 words.

For the word "bad" as an example there are fourteen words that are exactly homophenous, as follows: "bad, mad, pad, bat, mat, pat, ban, pan, man, pant," and so on. Here, too, the word must be told from the context, but the difficulty is really not so great as may appear. One would not confuse the two words "bat" and "mat" in the sentence, "Wipe your shoes on the mat." His common sense tells him at once which of the words from the group belongs here. Usually, only one word from a group will supply the meaning in a given sentence. Reducing the list of homophenes to the lowest number, in the average vocabulary, about 50% is homophenous. Every other word almost, has one or more sound movements in it that *might* be something else.

The third difficulty arises from the rapidity of many of the movements. In ordinary speech we form twelve or thirteen movements per second. The eyes are capable *consciously* of seeing only eight or nine movements per second, or about three-fourths. This constitutes a big problem for the eyes and would seem to make lip-reading an impossible thing. Success, shows the wonderful power of the mind to overcome the limitations of the eye. Practice will make the recognition of all the easier movements entirely sub-conscious, leaving the mind free to concentrate on the difficult ones.

One other obstacle for the eyes is that of variant mouths. No two are alike; and the difficulty is increased by the variation of certain sounds in the same mouth. However, as in hand-writing, certain fundamental laws are observed by every hand, so in speech, certain fundamental laws in the formation of sound are noted on every mouth. Some hand-writing is easy; some is hard to read. It is so in lip-reading also.

While definite eye training is of great value, the eyes *alone* cannot read lips. They must be trained to see all that it is possible to see and to see this sub-consciously. This means practice, practice and again more practice. "Lip-reading is an art," says Mr. Nitchie, "the teaching of it therefore requires the imparting of skill to the pupil rather than knowledge."

Fundamentally, the teaching of lip-reading is a psychological problem. Mind training is the important factor. It is the emphasis placed upon mind training that distinguishes the Nitchie method from all other methods. Each pupil presents a different problem to the teacher. The first lesson will reveal what mental habits must be cultivated or developed if the pupil is to become a successful lip-reader. There are three faculties, especially, of the mind that combine to overcome the limitations of the eyes; first, the synthetic power,—the ability of the mind to construct the whole from the parts, to grasp the thought of a sentence as a whole. A very small child undoubtedly understands synthetically, grasping the key words of what is said to him and thus catching the thought. Any hearing person understands in the same way. You do not think of the words, but only about the thought. It is the same in reading a printed page. The developing of this power of synthesis is constantly in the mind of the teacher of lip-reading. There is persistent insistence that the pupil get the *words* from the thought rather than depending upon word by word understanding to give the thought; second, intuitive power is of greatest value; that is, the ability to anticipate the thought and be ready for it. Hearing people are constantly anticipating as they listen to speech. You have all, many times either finished out sentences for others or had them finished for you. It is all the more important that a deaf person have this power, "for what the mind can quickly suggest, the eyes can readily see and interpret."

Our greatest difficulty in understanding general conversation, is in not knowing, so often, what is being discussed. The moment we know this, the mind has a clue to work upon and can usually follow the thought; third, the quickness of thought. Very fortunately for the lip-reader, thought is quicker than ordinary speech. It is possible to think through a familiar passage in about one-half the time that it takes to speak it. The mind of the lip-reader must be trained to think quickly, to be always alert, ready for new impressions and new turns of thought, and to concentrate. Almost every person lacks the power of concentration; the deaf are especially prone to be inattentive. "Most of us deaf people acquire the pleasant habit of dropping off into realms unknown and of roaming about in a world of our own," says one teacher. It is of prime importance that one setting out to learn speech-reading should form the habit of concentration, should learn to watch closely, *always,* the

mouth of the speaker. The definition which best of all expresses the psychological aspect of lip-reading, is that given by Mrs. Mary Porter, "Lip-reading is watching the mouth of the speaker and understanding the thought so conveyed."

Just here, I wish to give briefly the technical basis of lip-reading according to the Nitchie Method.

There are three groups of vowel movements, puckered, relaxed and extended. Watch my mouth while I say "food"; the drawing together of the lips, the puckered movement is clearly seen. Now watch while I say "fit"; the lips are in a natural, relaxed position. Again watch as I say "feet"; the lips are slightly drawn back or extended. Under each of these groups are to be found in ordinary speech, three widths of opening between the upper and lower lip, namely, narrow, medium and wide. For example, watch the difference between the opening of my lips as I say "food", then "fawn"; for the former, it is close or narrow, for the latter wide. The opening when I say "foot" is neither narrow nor wide, but medium. For the most part the mastery of these movements is not very difficult.

The consonant movements are both easier and more difficult than the vowel movements; that is, there are seven of the eleven fundamental consonant movements that can be so well learned that the skilled lip-reader sees them practically every time and these movements are less subject than the vowels to variation, because of the personal peculiarities of the speaker. But they are quicker than vowel movements and for many of the consonant movements there are two or more sounds having the same visible characteristics; "p", "b", and "m", in "Pie", "by" and "my" look exactly alike, as do "f" and "v" in "few" and "view".

Consonants are likewise divided into three groups, first, those revealed by the lips; second, those revealed by the tongue and third, those revealed by the context, being seen by the mind rather than by the eye. Watch my mouth while I say "pie", "by", "my"; you will observe that the lips open from a shut position. This will be true for any word in which this movement occurs. For "f" and "v" the lower lip touches the upper teeth as in "few", view". For the sound of "th" the tongue touches the upper teeth as in "then", "that". For "sh", "ch" and "j", the lips are projected as in "sheep", "chap", "jam". The sounds for "k", "hard g" and "nk" show no movements and must be told from the context. This will suffice to illustrate the theoretical basis of lip-reading and give you some idea of how it is developed. I have outlined the difficulties in lip-reading elsewhere. Systematic training and persistent practice can overcome them, however. In this connection, it may be of interest to state that Mr. Nitchie and all of his teachers in the New York School are deaf. Miss Martha Bruhn of the Boston school is likewise deaf, as are the majority of the normal graduates of the Nitchie School that have established branch schools in the large cities throughout the United States. While a hearing person is not barred from the normal course, Mr. Nitchie believes that, if deaf, the teacher can more sympathetically cope with the difficulties of pupils.

A natural and usual question is that regarding the length of time required to become a skillful lip-reader. This depends in each case upon the person. Some find it very hard; occasionally, though rarely, someone will find it quite beyond him, and many others find it comparatively easy. The type of mind of the pupil may make the work hard or easy. Some people possess a real talent for this, just as they may for music or any other art; naturally for such a one the way will be easier. A man or woman whose mind is literal, analytical and unimaginative will have greater difficulty. The teacher's aim with such a pupil is always to overcome these tendencies and to develope their opposites. One with quick perception, natural, synthetic qualities and good intuition will learn lip-reading easily. Very few are altogether of the first class; most of us, however analytical, possess also some synthetic powers and quick intuition.

Learning the theory and principles of lip-reading is the easiest part. The regular course consists of 35 lessons. Three lessons a week for three months, will usually suffice for this and give to some persons considerable skill. Ordinarily, the first three months should be followed up by three months to a year or more of very faithful, thorough practice with a teacher or someone who is able to give trained assistance. It all depends upon the individual. As in any art, neglect on the part of the student causes a loss, just as one is sure to go backward in music if he neglects constant practice. but though it requires very faithful, earnest effort, the gain is far in advance of any cost of time, effort or money.

Another question asked often is regarding the age limit. In actual fact, there is none. Naturally

an old person finds it harder and a person of middle age will not learn to read as quickly as a young person, but people of all ages, even beyond seventy, have become good lip-readers. Again it is a question of the person.

Two objections to lip-reading are sometimes brought forward, first, that the eye-strain is too great, and second, that, by substituting eyes for ears, there is a tendency for the hearing to deteriorate. At first, the strain upon the eyes is indeed no small one. It is a point that both teacher and pupil must be careful about always. However, this is, in most cases soon overcome. Those complaining of eye strain during the first lessons, later think no more about it. Gradually the eyes can do more and more and not become over-tired.

As to the ears, Mr. Nitchie, who has had years of experience, says he has never found evidence of such harm. Other teachers of experience say the same. Where a pupil is only slightly deaf, he is encouraged to use eyes and ears in fullest co-operation. Most deafness among adults comes on gradually and it is hard, often, to say, to what cause its increase may be attributed. Lip-reading relieves the ear-strain and the nerve strain and for that I know, personally, that it is most helpful. In any case, whatever loss may come to the ears by substituting eyes for ears, is more than made up to the individual by his ability to read lips. It is a common experience among lip-readers that are slightly deaf, to feel that the hearing has greatly improved, when in reality, they are reading lips.

Why do not more of the three million take up this study? A very surprisingly small number has thus far tried to learn, though each year finds an increasing number doing so. Conscientious, persistent effort is necessary for success. This deters many from undertaking it. Some have no faith, either in themselves, or in lip-reading, to help them. Chiefly, the reason is, that comparatively few who have become deaf in adult life, have ever heard of this way out of their deficiency. And if they have, they are apt to associate it with those "deaf and dumb", rather than with themselves.

It is here that the aurists can greatly help. Their advice and encouragement to patients is very many times all that is needed to start them in the acquirement of this art that can almost always help, and in the majority of cases, bring decided skill. When in the history of a case of deafness, the doctor must tell his patient that medical skill can do nothing more for him, then he may safely urge lip-reading. Even to those slightly deaf, where the trouble is under control, lip-reading will relieve nerve strain.

In conclusion, I wish to quote from Mr. Nitchie, "Lip-reading, then, is not a cure for deafness, nor is it even a cure for all the ills of deafness; but from some of the worst ills it is a true alleviation. It takes first place on the majority of occasions over all mechanical devices. For those completely deaf, or so deaf as to make mechanical devices out of the question, lip-reading is the only resource. For those whose deafness still allows them to hear the sound of the voice" (though not to distinguish words) "it obviates the necessity of using these more or less cumbersome and inconvenient contrivances. Even at such times, when these devices can be used to advantage, watching the lips, helps to make them more useful and more reliable. Under any circumstances, lip-reading has in it the power to make deafness of whatever degree, much easier to bear."

That there may be an increase in pellagra during the coming year on account of the rise in the cost of foodstuffs is the fear expressed in a statement issued by the U. S. Public Health Service to-day. As a result of government researches it was found that pellagra is produced by an insufficient, poorly-balanced diet and that it can both be prevented and cured by the use of food containing elements in the proportion required by the body. The application of this knowledge greatly reduced pellagra in 1916 as compared with previous years. This reduction is believed by experts of the Public Health Service to have been due to improved economic conditions which enabled wage-earners to provide themselves with a better and more varied diet and to a wider dissemination of the knowledge of how the disease may be prevented. It is feared, however, that pellagra may increase in 1917 by reason of an increase in food cost out of proportion to the prosperity now enjoyed by this country. The great rise in the cost of forage, particularly cotton seed meal and hulls, is causing the people in many localities to sell their cows and thus there is danger that they will deprive themselves of milk, one of the most valuable pellagra preventing foods. The high cost of living has further served to bring about a reduction in many families in the amount of meats, eggs, beans and peas consumed, all of which are pellagra prophylactics. In effecting economies of this nature the general public should bear in mind the importance of a properly balanced diet and refrain from excluding, if possible, such valuable disease preventing foods. It is believed that unless this is done there will be a greater incidence of pellagra next spring.

THE FUNDAMENTAL PRINCIPLES OF PROTEIN POISONING MANIFESTATIONS.

BY ROBERT CURTIS BROWN, M. D.,

MILWAUKEE.

1. The protein of all food stuffs contains a poisonous element which can be extracted and isolated. The reason that protein foods do not normally poison is that the mechanism of metabolism if uninjured is able to chemically break down the protein substances and build them up again into the cellular elements of the tissues in such a way that the poisonous elements are not able to produce reactions beyond the normal.

2. The specific nature of an animal or plant is due to the chemical arrangement of molecules in the tissue cells of the individual animal or plant, it varies somewhat as to the individual more as to the family and most as to the species.

3. The ability to digest foreign protein by enteral and parenteral digestion depends upon the chemical arrangement of the molecules in the tissue cells. The chemical characteristics of the tissue cells can be inherited just as the physical characteristics can be.

4. Through long continued excess of protein intake (especially animal protein) the human race has injured its apparatus of metabolism so that it cannot handle the protein physiologically without undue reaction from the poisonous elements contained in it. This inability to properly metabolize protein is more noticeable in some families than others.

5. Through this inability to properly metabolize protein abnormal reactions may be produced in any tissue or organ of the body. These reactions are protein poisoning manifestations.

6. Disease is not inherited but the inability to properly metabolize protein is inherited and this is the basis of the so-called familial diseases.

7. This inability to properly metabolize protein is the basis of the lithemic diathesis of the old French school and the basis of the exudative diathesis of the modern German pediatrician. It is also the basis of idiosyncrasies to special food stuffs.

8. The ductless glands as part of the mechanism of metabolism are apt to be injured by being pushed beyond their normal capacity and various abnormal reactions due to their over or under secretion result. Protein poison is then the basis of ductless gland disease and this fact gives us the basis of treatment by protein restriction and organotherapy.

9. One of the manifestations of protein poisoning is the tendency to hemorrhage as nose bleed, menorrhagia and pupura hemorrhagia. This tendency is familial and can be influenced by certain organic extracts.

10. Another manifestation is the tendency to new growth as shown by warts and moles, fibroids and cancer.

11. A peculiarity of protein poison manifestations is that in one member of a family they may take one form and in another member another form while still another member of the family may escape entirely and yet transmit the tendency.

12. Just as the protein in the body of the bacillus (as shown by Dr. Vaughn) is the poisonous element and the cause of abnormal reactions in infectious disease so the protein poison in food stuffs is the true basis of disease not due to infection.

Fearing a nation-wide spread of trachoma, the dreaded eye disease, the United States Public Health Service is contemplating the examination of all school children in the United States, particularly those in seaport cities. At present the contagion seems principally confined to the mountainous sections of Kentucky, West Virginia, Tennessee, Virginia, North Carolina, and South Carolina, and the service is devoting particular attention to the mountain children of these states. Great care on the part of immigration officials at New York is exercised in admitting to this country any one suffering from this disease.—*National Committee for the Prevention of Blindness.*

DO YOU KNOW THAT

A little cough often ends in a large coffin?

Bodily vigor protects against colds?

Careless sneezing, coughing, spitting spread colds?

Open air exercise cures colds?

Colds sinetimes get well in spite of the excessive use of alcoholic beverages?

Overheated, air-tight rooms beget colds?

Neglected colds often forerun pneumonia?

Persistent, oft repeated colds, indicate bodily weakness?

THE INTERPRETATION OF LABORATORY REPORTS ON WASSERMANN TESTS.*

BY J. J. SEELMAN,

MILWAUKEE.

When the Wassermann test for syphilis first came into general use a great deal was said for and against its value as a specific diagnostic agent. In spite of the suspicion which such a controversy alone naturally tended to incite, the test forced its way, by virtue of intrinsic and clinically demonstrable value, into almost universal acceptance by careful clinicians.

I believe that much of the earlier controversy was due to an imperfect understanding of some of the conditions of the test. A more thorough general understanding of these conditions has served to dispel suspicion, and to increase the usefulness of the test immeasurably.

Every physician who employs this test must, if he would intelligently evaluate the findings, have a general knowledge of its principles and sources of error, and a definite knowledge of its degree of specificity as determined by authentic, experimental research. He need not necessarily understand the details of the technic involved. If, however, he has a general knowledge of the principles upon which the test is based he can form a more intimate and personal judgment of its value and limitations, and he will be able more effectively to correlate the laboratory findings to the clinical aspects of his case.

The essential purpose of a complement fixation test is to detect the presence of antibodies of the organism causing the disease, in the serum of the individual under examination. The result of the test, taking for granted that it has been correctly performed, is merely an expression of the relative quantities of these specific antibodies present in the blood. Even a negative finding does not necessarily mean that they are absent, but simply that they are not present in sufficient amounts to be detected by the test.

Of course, a person either has or has not syphilis. The ideal test would be one which would tell us definitely in every case whether he has or has not. Unfortunately the ideal is as difficult to attain in this, as in almost all other departments of medicine. A complete fixation test is not an infallible, but a presumptive indicator. The laboratory report is a report on the test, not on the case. It must remain for the physician, with a full knowledge of the degree of specificity of the test, to judge the position the findings should command in the clinical history of his case. To aid the physician in this judgment the laboratory makes use of signs to indicate the degree of response to the test. It may be well to consider these separately.

Negative: A negative reaction is presumptive evidence against the existence of syphilis. A negative reaction, however actually means only that there were not sufficient syphilitic antibodies in the circulating blood to be detected by the test. In some cases of syphilis the antibody production is very low, or, if produced, the antibodies do not find their way into the circulating blood. Such cases cannot be detected by a Wassermann test, and it therefore follows that a negative reaction does not necessarily exclude syphilis.

Plus Minus and One Plus Reactions: These reactions mean that a very mild degree of inhibition resulted. They are not in themselves sufficient evidence of the presence of syphilis, and must be interpreted with a great deal of caution. Only in the presence of a clinical history pointing quite definitely to the disease may they be considered specific. It is in controlling the treatment of syphilis that the mild reactions have their chief value. If, after a course of treatment, a serum which has been distinctly positive still shows a plus minus or a one plus reaction, the deduction may safely be made that the case has not been cured and requires further treatment. To make a diagnosis of syphilis on a one plus reaction alone, unsupported by other evidence, is little short of criminal.

Two Plus Reaction: This reaction, obtained on a fresh, clear serum free from hemolysis, in the presence of suspicious symptoms or history, may be considered sufficient to determine the diagnosis. In the absence of such symptoms, when the test is made, as sometimes happens, to satisfy a patient's apparently ungrounded fears, or in the course of experimental research work, the two plus reaction, taken by itself alone, cannot be considered specific. It should, however, in any event, excite suspicion and lead to careful observation of the patient.

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*Read before the 10th Dist. Medical Society, Eau Claire, Wis., Nov. 9, 1916.

When obtained in a case under treatment it is plainly evident that a cure has not been effected.

Three and Four Plus Reactions: These may always be considered conclusive evidence of syphilis if frambesia and scarlet fever have been ruled out. I may say, however, that some doubt has arisen recently as to whether scarlet fever gives the reaction or not. It should also be remembered that positives have occasionally been obtained in malaria, pellagra, leprosy and relapsing fever.

Following are the findings that may be expected in the different stages of syphilis:

Primary Syphilis: Positives have been secured as early as the fifth week after infection. As a rule, however, a positive does not appear until about seven to eight weeks after infection, which is usually about two weeks before the secondaries appear. At this period the cerebrospinal fluid is always negative.

When the chancre appears the proper diagnostic procedure is to make a direct examination of the sero-purulent discharge from the sore; in syphilis the presence of spirochetes can almost invariably be demonstrated with the dark-ground illuminator.

Secondary Syphilis: In untreated cases about 95% positives should be obtained. In treated cases this number is, of course, reduced. A four or three plus in this stage is always conclusive. A two plus or one plus is less decisive, unless treatment is being given, in which case this should be discontinued and the test repeated. A negative is of more value in this than in any stage, only about 5% false negatives being obtained. However, repeated negatives, even in the presence of symptoms simulating secondary syphilis, conclusively negative the disease.

Tertiary Syphilis: From 75 to 85 per cent. positives are obtained in this stage. A four and three plus are always conclusive. A two plus occurs oftener in this stage than in the secondary. It is conclusive if clinical signs of the disease are present. A one plus is valueless unless obtained repeatedly in the absence of treatment. If obtained repeatedly in the presence of suspicious history or symptoms it is suggestive. A single negative is of but slight value in this stage. The disease can be eliminated only after repeated tests have given negative results.

Latent Syphilis: From 55% to 65% positives are obtained. Three plus and four plus are always conclusive, but are not encountered as often as in the active stages. The interpretation of one and two plus reactions offers considerable difficulty in this stage of syphilis. If it is a case with a clear history, especially with a previous strong Wassermann reaction, the diagnosis can be considered established. Without such a history the diagnosis should be deferred and subsequent tests made. A negative in this stage is of value only if repeated at long intervals.

Congenital Syphilis: In untreated cases the Wassermann test is almost always positive.

Syphilis of the Nervous System: In some forms of nervous syphilis a negative serum Wassermann is obtained in a considerable per cent. of cases. In many of these the nature of the trouble is revealed only by an examination of the spinal fluid. In addition to the serum and fluid Wassermann, a globulin test and cell count are also made as a routine measure. The incidence of the findings of these four tests yields valuable information in many cases of syphilis of the nervous system.

The findings here outlined are what one can expect to obtain from the work of a laboratory employing a carefully controlled technique following or closely simulating the classical Wassermann test.

It should be remembered, however, that a considerable variation in percentage findings has been reported by different workers, due chiefly to the use of varying modifications of the test. There are, perhaps, few laboratories in this country that do not deviate in some way from the original Wassermann technic. Most of the modifications have been introduced for the purpose of increasing the percentage of definite positive findings in syphilitic bloods. Some have attempted to attain this end by the introduction of more sensitive antigens than that employed by Wassermann.

I have not time to discuss the merits or demerits of the various modifications of the Wassermann test, or of the different antigens in popular use. I do wish, however, to emphasize the fact that the findings on any given blood may differ according to the method employed and the antigen used. If the physician will bear this in mind he will understand the importace of familiarizing himself with the methods of the laboratory doing his work, and of knowing exactly what reliance can be placed on findings obtained by those particular methods. For,

instance, a negative on a Noguchi or Hecht-Weinberg method is more decisive than a negative on a classical Wassermann. A negative on a cholesterinized antigen is more decisive than a negative on a syphilitic liver extract. On the other hand, a one or two plus on a syphilitic liver extract carries more weight than the same reaction on a cholesterinized antigen. To illustrate, we have in our laboratory made it a rule to test all sera with two antigens, a syphilitic liver extract and a cholesterinized human heart extract. I may say, by the way, that we have found this so helpful that we have decided to add an acetone insoluble lipoid antigen as a routine measure. It is not an uncommon occurrence for us to obtain a one or two plus reaction on the liver antigen and a four plus on the cholesterinized antigen. Occasionally we even get a three or four plus on the cholesterinized, and a negative on the liver antigen. These are usually, as Kolmer has pointed out, insufficiently treated cases of syphilis. Such cases would remain undetected in a test in which only the syphilitic liver or similar antigen had been used. While the cholesterinized antigen is extremely sensitive, it is not quite as specific as the less sensitive antigens, that is, a small number of mild positives, about 5%, are obtained on negative sera. It is, therefore, dangerous to use it alone, uncontrolled by other antigens, or if used alone mild reactions must be viewed with extreme conservatism.

I mention these more or less random facts, not for the purpose of elucidating the subject, as this would require considerable more time than I have at my disposal, but to illustrate its importance, in the hope that this will stimulate the physician himself to study it in detail. He will then understand why it is that different reports may be received on the same blood from different laboratories, and such an occurrence will not diminish his confidence in the test. He will understand why it is that a negative finding does not definitely exclude syphilis, and a one or two plus positive does not definitely mean syphilis. He will understand why it is as important for him to know by what method the findings were obtained as it is for him to obtain the findings, for only with that knowledge can he intelligently interpret them. And finally he will have dispelled the delusion that the Wassermann test is or should be an infallible oracle, and realize that it is no more, and perhaps never can be more, than an indicator, conclusive in a large number of cases, helpful in a smaller number, and valueless in a few.

One other factor that should be taken into account in this connection is the attitude of the serologist to the test. Even the same method, and the same antigen, employed by two different technicians may yield different results, depending on whether the worker is extremely cautious or extremely liberal. For instance, one will use an amboceptor of such high titer that he will get hemolysis on all sera except those that are surely positive. He will never report a false positive, but will frequently report false negatives. Another will hold his amboceptor titer so close to the hemolytic unit that a positive will never escape him. But he will get some positives on negative sera. It is evident that reports from these two workers must be interpreted differently. A positive from the former would be more conclusive than the same report from the latter. On the other hand a negative from the latter would carry more weight than a negative from the former.

Before concluding I wish to say a word concerning the qualifications of laboratory assistants. I believe this to be a most vital consideration. If complement fixation tests are to assume the degree of confidence they are entitled to in the minds of the practising physician, they must be performed only by men and women thoroughly and adequately trained to this class of work. This training must consist of more than the mere throwing together of things in a test tube and watching results. It must be a training based on a wide knowledge, both theoretical and experimental, of present day immunology. And with this knowlege must go the subconscious perfection of technic that is acquired only by long training. Someone has said, I forget just who, that one does not perform a Wassermann test, one lives through it.

The tendency of laboratories to place men and women in charge of important work after a few weeks, or even months, of training is much to be deplored. I have seen nurses making Wassermann tests who had not the remotest conception of the immunological principles involved; who had never seen a rabbit immunized against sheep's corpuscles; who had never made nor seen an antigen made. I have seen medical students working in laboratories during their spare time, entrusted with these tests after a short training. Such work is bound to be,

if not always, at least often, of an inferior character.

I believe provisions should be made, in the way of training requirements and special state board examinations, that will give assurance to the practicing physician that those who profess to do laboratory work, either as principals or assistants in laboratories, either public or private, have the necessary qualifications, just as the physician himself must pass rigid examinations for the protection of the public.

In the meantime the only protection the physician can have is to make it his personal business to determine the character and ability of the men who actually make the tests in the laboratory to which he entrusts his work. The name of a well known, competent man on a letterhead does not prevent a slip in a test by an inexperienced, or let me say, an under-experienced assistant. The admiral of a fleet is an important personage, but it is the man behind the gun that makes the hits, or the misses.

To sum up, if a clinician wishes to get the most that he possibly can out of a Wassermann test report he must meet at least the following requirements:

(a) He must have a knowledge of the general principles of the test and its sources of error.

(b) He must know the method or modification employed, and what antigen was used in the test.

(c) He must know exactly the degree of specificity of the method employed and of the antigen used.

(d) He should, either directly or indirectly, have acquainted himself with the qualifications of the technician, and of his attitude toward the test.

TREATMENT OF BACILLUS PYOCYANEOUS INFECTION.

Kenneth Taylor (Journal A. M. A., November 25, 1916) recalls that much trouble in the healing of wounds has been encountered from their infection with the bacillus pyocyaneus. This organism has proved very difficult of removal from infected wounds. Studies were undertaken to discover a means of ridding the tissues, and it was found that the organic acids seemed specifically inimical to its growth. Of these acetic was the most effective. On the strength of experiments with this and other disinfectants in vitro clinical use was made of a one per cent. solution of this acid in normal saline. Comparative observations were made of the effects of a number of other disinfectants in a large series of cases, but none was found which would remove bacillus pyocyaneus from the wounds except the solution of acetic acid.

DIRTY DOCTORS.

The Journal of the Kansas Medical Society well says, that people are not strongly impressed by the views upon hygiene and personal cleanliness of a man who is not, himself, clean. People are but slightly impressed with the dangers of infection when they are examined and treated in an office which is most remarkable for its filth. This subject of hygiene has become entirely too popular for the doctor who is too lazy, too indifferent or too busy (and, we might add, too ignorant) to apply the ordinary rules of sanitation to himself and his office. The people will not longer tolerate a careless disregard of the most simple hygienic rules in those to whom they entrust the care of their ailments.

The Indiana State Board of Health has adopted strong resolutions in which they set forth that a survey has clearly indicated that many physicians, surgeons and dentists' offices are dirty, and that many members of these professions are personally unclean, and it has detailed an inspector to go from office to office in that state with the purpose of finding these unsanitary and unclean conditions and correcting them.

We feel that there is a rather better way to correct the evident faults of the profession along this line, and, that is, that this important subject shall be considered and discussed by the county societies. The children are being educated in the public schools of Kentucky, that a dirty doctor is as dangerous as a dog with hydrophobia, in fact, he is more dangerous, because you can kill the dog, and the dirty doctor can only kill the patient. We are glad that there are very few doctors in Kentucky, to whom this ugly adjective can be applied, but there are many of us who are careless in a greater or less degree in our personal habits and who can reflect greater credit upon the profession by correcting them. If we fail to take stock and improve such conditions, it is only a question of time until they will be improved for us by the outraged public.—*Kentucky Medical Jour.*, Feb., 1917.

Out of 330,179 school children examined in the city of New York in 1914, 194,207, or 58.8%, suffered from defective teeth. This exceeded the sum total of all the other defects noted by nearly 80,000. Defective teeth impair general health and impede school progress. Disorders of the digestive tract, tuberculosis and various other diseases frequently are preceded by diseased conditions in the mouth. There is a direct relationship between dental development and mental development, and it is absolutely essential to good work in schools that children's teeth be maintained in a healthy condition. The Public Health Service recommends that a good tooth brush be included in the list of Christmas presents for every American child and that its use be made a part of the daily training. If this recommendation is carried out the United States will have more healthy children this year than last and their chances of growing up into useful, healthy men and women will be increased.

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EDITORIAL

HONOR ROLL, FEBRUARY 1ST.

EVERY EFFORT WAS MADE THIS YEAR TO INTEREST MEMBERS IN PAYING THEIR ANNUAL DUES IN JANUARY. OBLIGATIONS TO YOUR MEDICAL ORGANIZATION SHOULD BE MET AS PROMPTLY AS THOSE TO OTHERS. MEMBERS WERE CAUTIONED THAT THEIR DEFENSE EXPIRED JAN. 31ST. THE RESULTS ARE SHOWN BELOW AND, WHILE A GREAT IMPROVEMENT OVER FORMER YEARS, IT IS DISAPPOINTING TO NOTE THAT TWENTY COUNTIES FAILED TO SEND IN FIFTY PER CENT., AND OF THESE, THIRTEEN MADE NO REPORT WHATEVER.

THE FOLLOWING NINE COUNTIES SENT IN PERFECT SCORES:

CALUMET,
GRANT,
MARINETTE,
MONROE,
OZAUKEE,
PIERCE,
PORTAGE,
RUSK,
TREMPEALEAU-J-B.

THE FOLLOWING MADE EXCELLENT SHOWINGS AND ARE GIVEN FOR HONORABLE MENTION:

75 to 100%.

Ashland-B.-I.,
Chippewa,
Crawford,
Door,
Douglas,
Dunn-P.,
Fond du Lac,
Jefferson,
La Crosse,
Langlade,
Oconto,
Oneida-F.-V.,
Outagamie,
St. Croix,
Vernon,
Wood.

50 to 75%.

Clark,
Columbia,
Dane,
Iowa,
Marathon,
Milwaukee,
Sauk,
Shawano,
Sheboygan,
Washington,
Winnebago.

IS YOUR COUNTY IN THE FIRST LIST? IF NOT, ARE YOU HOLDING IT BACK BY FAILURE TO PROMPTLY MEET YOUR OBLIGATIONS?

THREE DON'T FORGETS!

1—DON'T FORGET TO PAY YOUR DUES AT ONCE IF YOU HAVE NEGLECTED IT.

2—DON'T FORGET TO STUDY AND BECOME FAMILIAR WITH THE SUBJECT OF "HEALTH INSURANCE."

3—DON'T FORGET THAT FAILURE TO DO THE ABOVE MAY RESULT IN SERIOUS FINANCIAL LOSS TO *YOU!*

WARNING!

UNLESS YOU HAVE PAID YOUR 1917 DUES, YOUR MEDICAL DEFENSE PROTECTION EXPIRED JAN 31ST. ARE YOU IN THE HABIT OF ALLOWING YOUR FIRE OR LIFE INSURANCE POLICIES TO EXPIRE?

PUBLICITY FOR OUR MEDICAL DEFENSE.

THE defense of its members by the State Medical Society, against suits for malpractice, has been an accepted institution since 1908. Despite the nine years of it's existence it has at no time been dignified with comment in these pages. This has been through no fault of the editor, nor through remissness of the Defense Committee, but solely because our legal adviser deemed it a precautionary measure worth observing.

But we are told that restraint may now be cast to the winds; therefore the grant of free discussion in the Journal is hailed with great eagerness and given ready response. Hitherto all information has been limited to reports submitted annually to the House of Delegates—then carefully pigeonholed in the Secretary's files. From now on these reports will be published with the Proceedings.

In this issue we present the reports of two preceding years—1915 and 1916—just as they were submitted to the House of Delegates. No diagrams are needed to make them intelligible to our readers. We believe that we can challenge any other Medical Defense body upon our results, and point with pride at a record achievement.

Our expectation that malpractice suits would be lessened because of the success attained, has not been realized; as a fact—they have seemed to increase in proportion to our success in combatting them. But there is an assignable reason apart from this aspect alone. Since the passage by the State of Wisconsin of the employers' liability laws, and the decrease of personal injury actions, attorneys who conducted such suits are seeking revenue in new fields, and malpractice cases are falling into the hands of so-called personal injury specialists. Casualty Insurance Companies are experiencing a large increase in malpractice cases which they ascribe mainly to the passage of the new employers' liability law. The effect of this law has been, in part at least, to prevent the realization of the hope that the society defense system would lessen the number of cases. In addition to this, the constantly growing use of X-ray apparatus and other devices brings to light many a cause for complaint by a patient which, but for the use of such implements, would have remained to him obscure. A slight displacement, as shown by the X-ray, in a fracture case, which displacement, however, has no injurious effect upon the patient, gives rise oftentimes to an action at law.

A bit of advice to those who are threatened with a suit, or upon whom papers have been served:

1. Present your case at once to your protective association—be that the State Medical Society, or an Insurance Company, or both. Our Society cooperates with the latter when it is desired that both assist in defense. Some insurance companies pay indemnity; we do not, we fight.

2. If you want the State Society's protection, send your communications to the Secretary of the Medical Defense Committee direct.

3. Do not talk promiscuously about your case—not to laymen, not to lawyer acquaintances, and not too much to physicians. By disregarding this you may unwittingly make statements that someone may turn to adverse use.

ARTHUR J. PATEK, *Secretary,*

Com. on Medical Defense, State Medical Society.

NOTES ON THE MEDICAL SERVICE AT CAMP WILSON.

1ST LIEUT. B. B. ROWLEY, M. C., 3RD WIS. INF.

THE big concentration camp at Camp Wilson from which the Wisconsin troops have recently returned after a stay of six months, has been of considerable educational value from the standpoint of the medical officer, and the experience gained by him has really been of great value. The greatest lesson taught us by this big concentration of troops has probably been this: it is possible to concentrate thousands of troops and keep them for months on one camp-site without the danger of a sweeping epidemic of disease. To anyone who is acquainted with the high percentage of mortality from typhoid fever and dysentery during the troop concentration in 1898, the record made at Camp Wilson is almost unbelievable. During the six month's stay, of the Third Wisconsin Infantry at Camp Wilson, there was but one case of typhoid

fever and even in this case the diagnosis is questionable and I understand that this is the only case of typhoid which occurred among the Wisconsin troops. There was not one case of cholera, not one case of dysentery or cerebro-spinal meningitis and but few cases of malaria.

To what conditions can we give credit for this record? First, every man who went to the border received three anti-typhoid inoculations either before he left his home state or immediately upon his arrival in Texas. Second, a careful physical examination of men was made at Camp Douglas and a great many were eliminated because of physical defects. Third, and probably most important, was the hygiene and the extremely careful supervision of sanitary conditions at Camp Wilson.

From a sanitary standpoint the kitchen is probably the most important part of the Camp. We came to believe that in most cases a clean, sanitary, carefully supervised kitchen meant a healthy company and a healthy camp. All garbage was immediately burned, the McCall type of incinerator being used. The kitchens were large wooden frameworks enclosed on all sides with wire screening, small enough to keep out flies. Absolute cleanliness as regards food and the condition of the kitchens and mess halls was demanded, liberal use was made of fly paper, and a systematic war on flies was waged. A medical officer of the regiment made a complete inspection of all kitchens, incinerators, latrines and picket lines daily. Any defects or deficiencies whatsoever were noted and a typewritten report showing plainly the sanitary condition of each company was made and placed upon the bulletin board at headquarters before 11 o'clock every morning. Should the same unsanitary condition be reported for a company two or three times without being remedied, it was reported to the major of the battalion, and in practically every instance, in the Third at least, the line officer gave his heartiest co-operation in the remedying of these conditions. Latrines were inspected twice a day and burned out with straw and crude oil twice daily. The Third regiment returned to its home state bringing back every man with which it left six months before except the one case of typhoid left at Ft. San Houston and practically every man was in much better physical condition than when he left. A complete physical examination was made of every man before he left Wisconsin and another complete physical examination made of every man at Ft. Sheridan before muster out, and the examining physicians were themselves astonished at the physical improvement shown by the regiment as a whole.

Everything considered, I am sure that practically all of us are very glad of this experience which we have had, and the Wisconsin Guard as a whole will be a better and more efficient body of men than they were before their border experience.

THE ANNUAL REPORT OF THE PUBLIC HEALTH SERVICE.

THERE is a wealth of interesting and extremely valuable material in these Annual Reports. No better argument could be adduced than a perusal of this book to demonstrate what could be done were the Public Health Service under a single head and all the various activities now scattered around, brought together.

When babies are considered by our legislators to be as valuable as pigs then, and not till then, will we have uniform health regulations and uniform means of combatting epidemics. As one glances over the pages of this volume, he is astounded at the varied activities of the Service. Here is the small-pox question, here the plague with valuable data concerning rat extermination; again Rocky Mountain spotted fever is taken up and a description of the methods used to check the spread. Milk and water and food supplies are considered, in some places, in detail.

Typhus receives especial attention, particularly in respect to the Mexican border. We learn that the problem of the leper in this country is assuming large and serious proportions. There is no interstate regulation, only two or three states have facilities for taking care of lepers and the increasing number of leprosy cases is a menace to public health. How much the whole problem would be simplified, had we in Congress men who could sink their own petty bickerings and view the situation from a broad humanitarian standpoint! As long as men like Senator Works of California are in Congress, any legislation for the people's protection will be killed in committee. Everlasting hammering at our representatives will, in the end, prevail. When our wives and mothers have a voice in the government it is to be hoped that they will help to place the health of the people above the health of the people's live-stock.

THE PERENNIAL QUESTION—DUES.

EVERY growing organization reaches out more and more for fields to expand its surplus energies. We must realize that, as our State Secretary says, we have reached about the limit of our growth in actual members and now the question looms large for us: What are we going to do for the men now that we have accomplished the first requisite, organization?

It is evident that others have been thinking of this question. Several tentative propositions have been presented. All call for the expenditure of money. Now, a glance at our Treasurer's report and the supplementary information that the Medical Defense Fund is overdrawn, will reveal that we have no funds to engage in any further activities. Yet we must do things for our members if the organization expects not to stagnate. We cannot afford to mark time. We must ever be moving forward.

But if the membership remains the same, the cost of administration gradually increases and new projects are entered into, it takes no mathematical genius to foretell the early predicament of the Society. As a matter of actual fact the time is here now and we must decide at the next Annual Meeting to what camp we belong. Are you a progressive or a stand-patter? Do you want the Society to extend its influence and broaden its scope or are you satisfied with things as they are and have been?

Thus the whole situation will resolve itself into a struggle between the two elements in the Society, and the fundamental proposition around which the debate will rage is, Shall we raise the dues?

This early in the year we call attention to this matter and urge the members to ponder well this most important subject. First thrash it out in your County Society. Then when you send your delegate to the annual meeting he will be able to express the sentiments of the members whom he represents. If all County Societies will do this, the House of Delegates will be able to act for the majority of the members of the State Society.

Think over this, ponder it deeply, act on it, then let us have definite action next October.

AMERICAN COLLEGE OF SURGEONS.

THOSE who heard the address of Dr. John G. Bowman at our State Meeting in October should be interested in reading his report to the A. C. S. at the Annual Meeting held recently. Those who did not hear Dr. Bowman should not fail to read the report. Even in abstract form we cannot find space for it unless the members of the State Society should let us know that they wish it published. That is a question for the members to settle. Dr. Bowman's remarks on hospitals, on hospitals and medical societies and on fee-splitters are well worth reading. He is brutally frank and strikes directly from the shoulder. It is exhilarating to find a man with the courage to express in public his real convictions.

His last paragraph we feel we must quote. He is talking, of course, to the A. C. S.

"We need your help, your co-operation, and your constructive inspiration. We need your belief in us; your confidence that nothing crooked is ever to be put over; your confidence that the biggest things that have ever happened in medicine *are* to be put over. When you joined the Americal College of Surgeons you did not join merely one more medical society. You joined a society which commands that if there is any white light in you, it must burn. It commands that you grasp the day's routine as a social service and in this twilight era that you illuminate those outlines, now only traceable, of the public good will which the profession should merit. It commands that you turn on the light."

HEREDITY AND CONTAGION IN CANCER.

PERHAPS no aspect of the cancer problem causes such widespread apprehension as the possibility of its being inherited. Broadly speaking such fears are probably groundless. When the disease occurs repeatedly in the same family there is a tendency to assume that it is inherited. This reasoning is of course superficial. Newsholme, Bashford and many other authorities have frequently pointed out that cancer is such a common disease among adults that by the laws of chance alone many cases are likely to occur in some families. It should be remembered that among people over forty years of age in this country cancer causes the death of one woman out of every eight and one man out of every fourteen. It is obvious that repeated instances must occur in some families and

this of itself does not prove that cancer is hereditary.

Important laboratory studies tend to prove the hereditary transmission of a liability to cancer among mice, but many leading authorities believe that we are not yet justified in applying these deductions to the human subject. Previous statistical investigation among human beings has failed to establish the inheritance of cancer and Mr. Hunter's study merely adds to the mass of evidence against heredity as a causative factor. In passing upon applications, insurance companies generally regard the history of cancer in the family as of little significance.

While the question of heredity cannot be viewed as absolutely settled, nevertheless the Publication Committee of this Society believes that the practical bearings of competent investigations of the human material should be brought home to newspaper readers in an effort to reduce the present excessive apprehension among the people regarding the possibility of inheriting cancer.

With regard to contagion we are on even firmer ground and the question may be regarded as settled. After countless operations there is no case recorded in which a surgeon or nurse has acquired cancer from the treatment or attendance upon any patient suffering from this disease. The public should be taught that the fear of infection is groundless since apprehension on this score has undoubtedly tended in many cases to prevent the most humane care of sufferers from a disease which, especially in its advanced stages, demands the utmost resources of patient and merciful ministration on the part of relatives and nurses.—Amer. Soc. Cont. Cancer.

ANNUAL MEETING OF THE COUNCIL.

MILWAUKEE, Jan. 8, 1917.

The annual meeting of the Council was called to order at 11 A. M. by the Chairman, Edward Evans. The following were present. Councilors Evans, Nye, Wilkinson, Zierath, Windesheim, Redelings, Hayes; Secretary Sleyster; Treasurer Hall; President Dearholt; Ex-Pres. Jermain; Editors Warfield and McMahon; and Committeemen Quick, Hopkinson, Patek and Seaman.

The reports of the Treasurer, Secretary, Councilors, Editors, and special and standing committees were read.

The present officers were re-elected for 1917.

A resolution was carried to the effect that the Council, as a representative body of the State Medical Society, urge the Governor the greatest care and necessity of grave consideration in the appointment of a successor to Dr. Beffel on the Board of Medical Examiners.

A resolution was carried that the Council instruct the legislative committee to oppose the granting by this year's legislature of a separate Board of Examiners for the Chiropractors, that they use their own judgment as to the extent of their opposition.

Dr. A. W. Gray spoke on the subject of Health Insurance. The subject of Medical Defense was also discussed.

There being no further business meeting adjourned at 4:30 P. M.

ROCK SLEYSTER, *Secretary.*

REPORT OF THE MEDICAL DEFENSE COMMITTEE TO THE HOUSE OF DELEGATES.

(See editorial in this issue of Journal.)

Medical Defense of its members by the State Medical Society has been in existence eight years. The same gratification upon its success, as expressed in previous reports, is to be reiterated now, when looking back upon the work accomplished. True, this has entailed a big expense; but by coming to the support of those attacked, our State Society has earned the gratitude of many of its members, and has, we hope, profited by making of these —and of others indirectly interested in their welfare— better, and more useful and devoted Society men.

Unquestionably there may have been a degree—large or small—of merit in some of the suits we were called upon to defend. But—right or wrong—we feel that the man who has erred is not likely to err again, and the man who is sinned against has had the support of the protecting arm of a united body of his fellowmen. After all, if the members of the Society will but remember that two dollars per year guarantees them protection, whether needed or not, and fights their battles when there is need, they ought to feel that this sum represents, not a burdensome tax for the benefit of the State Society, but in its cumulative form a positive safeguard against the single-handed defense of an unwelcome, unlooked-for, and perhaps unprepared-for costly litigation, and at a cost that is but the equivalent of the minimum fee a single patient would pay in two visits, in the course of an entire year. We might emphasize this point still more by stating that individual defended suits have cost this Society as little as ten dollars, and as much as $1,200. Viewed from this angle, we maintain, as we have taken occasion to do on previous occasions, that in offering its members defense on so generous a scale, this Society has adopted a benevolent undertaking of which it may indeed be proud.

Our pride might take a fall did the record of our work not bear out our benevolent intentions.

In lieu of reporting merely the number of cases that have been placed in the hands of your Committee, in this past fiscal year, we have prepared a tabulation of all the cases we have been called upon to consider, and have classified them so as to make their consideration more intelligible. (The numbers noted are for ready reference and are part of the secretary's case record.)

Total number of cases considered since 1908.....77

Cases tried before jury, with verdict for defendant....11
(2, 18, 20, 27, 30, 32, 34, 37, 45, 52, 53.)
In 9 of these verdict was rendered by jury.
In 2 of these verdict was directed by court.

Suits dismissed 17
Action for recovery of fees with counterclaim..3
Dismissed by court for want of prosecution...1
Dismissed by court upon hearing evidence....8
Dismissed by conference of attorneys.....5

Jury disagreed 3
Second trial pending.....1
Further course uncertain.....2

Cases lost 2
No. 46—Verdict rendered by jury—damages assessed $300
No. 48—Verdict rendered by jury—damages assessed $800
Has been appealed to Supreme Court.
Another case was lost in lower court, judgment of $1,200 entered. Reversed by higher court upon technicality, and dismissed.

Cases now pending....32
4, 19, 25, 28, 29, 36, 38, 39, 40, 42, 43, 44, 45, 46, 57, 59, 60, 61, 62, 63, 67, 70, 71, 74, 75, 76, 77.
Will probably not come to trial.....12
Pending and trial due.....16
Pending but further course uncertain..... 4
(All pending cases are fully prepared for trial.)

Cases brought to your Committee's attention, but later withdrawn and placed in hands of other insurance companies 2

Cases entered but withdrawn or refused because they did not come under the Society's jurisdiction.. 5
(Nos. 7, 8, 13, 14, 47.)

There remain five cases out of the seventy-seven not accounted for in this tabulation. Two of these represent two separate actions, and three were threatened complaints in which no action was taken.

We have made a further classification which will, we think, prove interesting and instructive. In this we have divided the cases into groups indicating the general character of offenses that were alleged to be cases of malpractice, and the disposition made of them.

Improper and Negligent Medical and Surgical Diagnosis and Treatment 13
Won (18, 32).....2
Dismissed (10, 31).....2
Pending (19, 38, 39, 42, 44, 57, 71, 75).....8
Lost (48) 1

Improper Treatment of Fractures....24
Pending (4, 25, 36, 40, 43, 46, 59, 60, 67, 74, 76) 11
Dismissed (5, 6, 9, 10, 12, 16, 23).....7
Withdrawn or not defended (7, 8, 35, 68, 72)..5
Won (37) 1

Improper Treatment; Needless Amputation Charged.. 6
Pending (44, 63, 77).....3
Disagreement (69) 1
Won (27, 45).....2

Responsibility for Development of Post-operative Hernia 2
Pending (70) 1
Disagreement (50) 1

Improper Treatment of Newborn.....2
Dismissed (41) 1
Lost (46) 1

Improper Diagnosis in Case of Insanity..... 1
Pending (65) 1

Improper Treatment of Mastoid Disease..... 2
Pending (49, 62).....2

Improper Treatment of Confinement..... 3
Dismissed (21) 1
Disagreement (24) 1
Won (2) 1

Responsibility for Death from Anesthetic..... 3
Won (30, 34).....2
Dismissed (56) 1

Leaving Foreign Body in Wound after Operation..... 3
Won (20) 1
Pending (60) 1
Dismissed (22) 1

X-ray Burn 2
Pending (28, 29).....2

Miscellaneous (1, 3, 13, 26, 33, 47, 52, 53, 68)..... 9

October, 1916.

Last year's report showed a total of 77 cases of malpractice suits that had been presented to your Committee for their defense since 1908. To these 77 cases there have to date been added 13, bringing the total up to 90. Besides these 13 new cases, 9 of the suits that were pending or not closed one year ago were submitted to trial.

The following disposition was made of these 9:

Tried and still pending (29, 61, 77)..... 3

Action dismissed (39, 48)..... 2
No. 48 was case dismissed by Supreme Court. In this case a jury in the lower court assessed damages in the sum of $800. With this case thus disposed of, it leaves but one of the total thus far tried in which damages were assessed ($300) and sustained.
No. 39 charged physician with failure to recognize cause of intraperitoneal hemorrhage.

Nonsuited (71, 74)..... 2
No. 71: nonsuited after a hard fought battle of 8½ days. In this instance the doctor was charged with having operated more extensively than had been agreed upon.
No. 74 was a fracture case.

Won by jury trial (69, 75) 2

No. 75. Doctor charged with negligence in treatment of wounded fingers.

No. 69. Incorrect treatment—failure to recognize alleged tuberculous bone disease.

Of the 13 new cases

1 has been tried (90) and was nonsuited by court. Complaint was that of needless operation for alleged carcinoma of breast.

There are pending (79, 81, 82, 83, 84, 89) 6

Of these:

1 (79) alleges negligence in confinement.
1 (81) alleges negligence causing ulcer.
1 (82) alleges unskillful treatment necessitating amputation of finger.
2 (83, 89) allege negligence in treatment of fracture.
1 (84) death from chloroform.

Suits threatened but no action commenced (80, 87, 88, 86) 4

Suit threatened but outlawed (78) 1

Doubtful case (85). Suit threatened because of quarantine for alleged contagious disease in family. 1

GILBERT E. SEAMAN,

SIDNEY S. HALL,

ARTHUR J. PATEK,

Committee on Medical Defense.

DIAGNOSIS OF DISEASE.

The modern diagnosis of disease aims to employ every method which will reveal the exact mental and physical condition of the patient. Psycho-analysis will reveal the depths of the patient's mind almost as clearly as the X-ray shows the broken bone hidden beneath the body tissues. The pressure of the blood against the vessel walls may be accurately measured and appropriate means taken to ward off an apoplectic attack. The bodily excretions may be analyzed and the efficiency of the excretory organs determined. Special apparatus permits the examination of the eye, the ear, the nose, throat, bronchi, and the interior of various other parts of the body. Nothing is taken for granted; the blood is examined; the activity of the stomach is estimated; the validity of the nervous system is looked into. The modern physician finds the disease before he treats it.

Accurate diagnosis is of importance to the public health because an early and correct knowledge of the presence of a disease affords opportunity to prevent its spread. The case of tuberculosis which is found early has an infinitely greater chance of recovery than the one which is found late.—*U. S. Public Health Service.*

OBSCURE LESIONS DUE TO SYPHILIS.

Dr. L. F. Barker (N. Y. Med. Jour., Feb. 26, 1916) gives the following brief list of conditions in which it seems to him especially important not to overlook the possibility of an existing lues.

1. Long continued fever otherwise unexplained.
2. Obscure nervous cases both functional and organic, the latter especially when the symptoms "come and go."
3. Chronic laryngitis, tracheal and bronchial stenosis, bronchiectasis, and unexplained infiltration of, or masses in the lungs and pleuræ.
4. Aneurysms.
5. Aortic insufficiencies, especially when unaccompanied by other valvular lesions.
6. Heart block and other cardiac arrhythmias.
7. Arterial and venous thromboses.
8. Certain grave anemias, resembling the Addison Biermer type.
9. Paroxysmal hemoglobinurias.
10. Indolent nodules in the tongue and tonsils.
11. Enlargements of the liver and of the spleen.
12. Strictures of the rectum.
13. Atypical joint diseases, and especially obscure diseases of the spine.
14. Thickenings of, or nodules in the bones, especially when accompanied by nocturnal pain.
15. Unusual forms of renal disease.
16. Chronic orchitis, or nodules in the testes.
17. Repeated miscarriages without apparent cause.
18. Stillborn children.
19. In disorders of metabolism and of internal secretion, especially in bizarre cases.

BOOK REVIEWS

DISEASES OF CHILDREN. By Edwin E. Graham, M. D., Professor of Diseases of Children, Jefferson Medical College, Philadelphia; Pediatrist to the Jefferson Hospital and to the Philadelphia Hospital; Consulting Pediatrist to the Training School for Feeble-minded, Vineland, N. J.; Member of the American Pediatric Society, etc. Octavo, 902 pages, with 89 engravings and 4 plates. Cloth, $6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

Chapter Headings—The Normal Infant at Birth, Normal Development of the Child, The Clinical Examination of Sick Children, Infant Mortality, Heredity, Congenital Malformations, Diseases of the Newborn, Infant Feeding, Normal Digestion, Fresh Air in the Treatment of Disease, Dentition, Rickets, Diseases of the Gastro-Intestinal Tract, Diseases of the Respiratory Tract, Diseases of the Heart, Diseases of the Blood, Diseases of the Ductless Glands, Disease of the Bones and Joints, Diseases of the Genito-Urinary System, Diseases of the Skin, Diseases of the Ear, The Specific Infectious Diseases, Rheumatism, Scurvy, The Nervous System, Puberty.

It is always interesting to learn the methods of any man who has reached distinction in his profession. Dr.

Graham's volume is one of those books which give the results of the authors practical experience and it has the advantages and the disadvantages of its class. Many of the chapters are pleasantly written essays on the subject under consideration and in this way the dreariness of form of the usual text-book is avoided to a considerable extent. The relative importance of the various topics is hardly indicated by the space allotted to them, however. While there is always considerable latitude to be allowed for individual differences of opinion there are some statements which have met the reviewer's eye which can not be allowed to go unchallenged. For instance, it would be much safer to give no advice at all in regard to the care of the baby's eyes at birth and to let the student look elsewhere for his instruction on that point, rather than to suggest a boric acid solution with the recommendation of nitrate of silver solution only, "if any suspicious vaginal discharge is present in the mother."

To cite another instance, in describing the treatment of acute appendicites the author recommends prompt surgical interference and then goes on to say: "If operation is refused, the child should stay in bed on a liquid diet, and the bowels be kept moving daily by the use of enemata." Such advice might have been justified twenty years ago, but it cannot be excused in 1916.

As this is the first edition of Dr. Graham's work it is hoped that the speedy appearance of later editions may permit its revision in the near future so that the blemishes upon an otherwise interesting work may be removed. For it is an interesting volume and one which will doubtless achieve wide popularity.

THE PRACTICAL MEDICINE SERIES comprising ten volumes on the year's progress in Medicine and Surgery under the general editorial charge of Charles L. Mix, A. M., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School.

GYNECOLOGY. Volume IV. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago and Herbert M. Stowe, M. D., assistant Professor of Obstetrics, Northwestern University Medical School; attending Gynecologist to Cook County Hospital. Price, $1.35. The Year Book Publishers, 327 So. La Salle Street, Chicago.

PEDIATRICS. Volume V. Edited by Isaac A. Abt, M. D., professor of Pediatrics, Northwestern University Medical School, attending Physician Michael Reese Hospital, with the collaboration of A. Levinson, M. D.

ORTHOPEDIC SURGERY. Edited by John Ridlon, A. M., M. D., professor of Orthopedic Surgery, Northwestern University Medical School, with the collaboration of Charles A. Parker, M. D. Price, $1.35.

GENERAL MEDICINE. Volume VI. Edited by Frank Billings, M. S., M. D., head of the Medical Department and Dean of the faculty of Rush Medical College, Chicago, assisted by Burrell O. Raulston, A. B., M. D., resident pathologist, Presbyterian Hospital. Series 1916. Price, $1.50. The Year Book Publishers, Chicago.

These small volumes of abstracts in the various branches of Medicine and Surgery are distinctly valuable. The volumes IV, V, and VI of the present series contain much that is interesting and of real use. If one wishes to keep up with the progress in Medicine he can do no better than study these volumes.

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A text-book specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph. D., M. D., Late Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; and Daniel Base, Ph. D., Professor of Chemistry in the Maryland College of Pharmacy, Department of the University of Maryland. Eleventh edition, thoroughly revised. Octavo, 648 pages, with 55 illustrations, one colored spectra plate, and 6 colored plates, representing 48 chemical reactions. Cloth, $3.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The eleventh edition of this book retains the essential features which has made it so popular among medical students and those wishing a concise, not too large, book on Chemistry.

This edition has been thoroughly revised, parts rearranged and parts deleted. We agree with the authors in omitting the sections on light and electricity from the section on Physics.

The general tone of the book is quite up to the standard of former editions and the added material with the incorporation of new matter from the U. S. P. brings the work up to date. We can recommend this book to all who wish to have in their libraries some work on elementary Chemistry.

PHARMACOLOGY AND THERAPEUTICS for Students and Practitioners of Medicine. By Horatio C. Wood, Jr., M. D., Professor of Pharmacology and Therapeutics in the University of Pennsylvania; Second Vice-Chairman of the Committee of Revision of the U. S. Pharmacopoeia. Second edition. Price, $4.00., net. J. B. Lippincott Co., Publishers, Philadelphia and London, 1916.

Wood's Pharmacology and Therapeutics has been a standard book for so long that it is supererogation to do more than mention to the profession the printing of a new edition. This edition has been revised and enlarged and conforms to the standards of the new U. S. P. We think there is no better Pharmacology published in English but we do wish that about seventy-five per cent more or less of the inert drugs which our superstition still makes us cling to, were cast into outer darkness never to return. We are hoping for the day to come when there will be a Pharmacology based on the undoubted action of drugs on the ill human body.

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Program Committee

EDWARD EVANS, La Crosse, Chairman

NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917.

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	C. J. Smiles, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	A. N. Nelson, Clear Lake	I. G. Babcock, Cumberland.
Brown-Kewaunee	J. P. Leufesty, De Pere	H. C. Mix, Green Bay.
Calumet	E. L. Bolton, Chilton	C. L. R. McCollum, Forest Junction.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	Frank Drake, Mendota	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. C. Sibree	T. C. Proctor, Sturgeon Bay.
Douglas	D. R. Searle, Superior	L. A. Porter, Superior.
Dunn-Pepin	A. F. Heising, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	H. F. Derge, Eau Claire	L. H. Flynn, Eau Claire.
Fond du Lac	G. B. McKnight, Fond du Lac	H. C. Werner, Fond du Lac.
Grant	J. C. Doolittle, Lancaster	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Freudenberg, Markesan.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	A. A. Busse, Jefferson	W. A. Engsberg, Lake Mills.
Juneau	Brand Starnes, Mauston	A. T. Gregory, Elroy.
Kenosha	C. R. Caughey, Kenosha	J. F. Hastings, Kenosha.
La Crosse	G. W. Lueck, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	W. A. Green, Wausau	F. H. Frey, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	Luella E. Axtell, Marinette.
Milwaukee	P. F. Rogers, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. R. Bell, Tomah	Spencer D. Beebe, Sparta.
Oconto	C. W. Stoelting, Oconto	T. C. Clarke, Oconto.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	G. A. Ritchie, Appleton	M. E. Rideout, Appleton.
Ozaukee	E. E. Coerper, Fredonia	C. E. Balkwill, Grafton.
Pierce	W. A. Lumley, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Liudores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	J. H. Hogan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	H. C. McCarthy, Richland Center.
Rock	E. E. Loomis, Janesville	F. E. Sutherland, Janesville.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel
Sheboygan	Otho Fiedler, Sheboygan	C. N. Sonnenburg, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	O. H. Epley, New Richmond
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	C. F. Peterson, Independence.
Vernon	J. K. Schreiner, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	H. A. Peters, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London
Winnebago	J. W. Lockhart, Oshkosh	E. H. Hunt, Oshkosh.
Wood	Ed. Hougen, Grand Rapids	W. M. Ruckle, Grand Rapids.

SOCIETY PROCEEDINGS

ASHLAND-BAYFIELD-IRON COUNTY SOCIETY

Ashland-Bayfield-Iron County Medical Society met on January 9th and elected the following officers: president, Dr. C. J. Smiles; secretary-treasurer, Dr. O. Braun.

O. Braun, M. D., *Sec'y-Treas.*

CALUMET COUNTY

Calumet County Medical Society met at Kiel on December 19, 1916, at the home of Dr. F. P. Knauf. Dr. L. F. Jermain of Milwaukee addressed the society on Compulsory Health Insurance, and also demonstrated the proper method of making a physical examination. After the meeting Dr. E. T. Rathert carried off the honors at the Bowling Alley. The Society extends a cordial invitation to the members at the northern end of the county to be present at the next meeting.

C. L. R. MacCollum, M. D., *Secretary.*

DANE COUNTY

Fifty members of Dane County Medical Society met at Cronin's Restaurant for a six o'clock dinner and the regular monthly session of the society. The topic for the evening's discussion was "Can the Present System of Handling Minor Offenders be Improved Upon?" The question was discussed by Judge A. C. Hoppman, District Attorney Sauthoff, Prof. J. L. Gillan and members of the society.

DOOR COUNTY

Door County Medical Society held its annual meeting at Sturgeon Bay on January 19th. Dr. H. C. Sibree was elected president of the society; Dr. E. H. Robb, vice-president; Dr. T. C. Proctor, secretary; Drs. G. R. Egeland and G. F. Hilton, delegates; Drs. H. F. Eams, C. C. Curtin and J. J. Hirschboeck, censors. This meeting was a business and social one and there was no discussion of professional topics.

DOUGLAS COUNTY.

The public health insurance bill which is to be introduced at the state legislature, was the principal topic of discussion at the meeting of Douglas County Medical Society, held at the Commercial Club rooms, Superior, on Jan. 19.

DUNN-PEPIN COUNTY.

Dunn-Pepin County Medical Society elected the following officers to serve for one year: president, Dr. A. F. Heising, Menomonie; vice president, Dr. J. C. DeWane, Boyceville; secretary-treasurer, Dr. I. V. Grannis, Menomonie.

I. V. Grannis, *Secretary.*

FOND DU LAC COUNTY

Fond du Lac County Medical Society held its regular bi-monthly meeting jointly with the Fond du Lac Dental Society at the Bellevue Jan. 11th. Supper was served at 6 o'clock after which the regular business meeting was held. Dr. T. A. Hardgrove gave an address on "Focal Infections: their Diagnosis and Treatment." "Pathogenic Organisms and their Relations to Systemic Diseases" was the subject of a talk by Dr. F. M. Harris, of the new laboratory at St. Agnes Hospital.

GRANT-CRAWFORD

Grant County Medical Society elected the following officers for 1917: president, Dr. J. C. Doolittle, Lancaster; secretary-treasurer, Dr. M. B. Glasier, Bloomington

JUNEAU COUNTY

The fourteenth annual meeting of Juneau County Medical Society was held at Camp Douglas on December 12, 1916. In the absence of the president, the meeting was called to order by Dr. E. H. Townsend. Minutes of the last meeting were approved as read. Dr. E. H. Townsend read a very interesting paper on Pernicious Anemia with a report of two cases.

On motion the following committee on Red Cross Work was organized: Drs. Brand Starnes, A. T. Gregory, G. H. Parham, T. S. Lawler and J. S. Hansberry. Dr. J. M. Conroy was admitted to membership. The following officers were elected for the ensuing year: president, Dr. Brand Starnes, Mauston; vice-president, Dr. W. B. Parke, Elroy; delegate, Dr. E. H. Townsend, New Lisbon; alternate, Dr. C. O. Cron, Camp Douglas; censors, Drs. C. A. Vogel, F. T. Field, and T. S. Lawler.

On motion the society decided to hold an open meeting at Mauston, the date to be decided by the president and secretary. A banquet was held at the Hotel Riley at 6. On motion the Society adjourned.

A. T. Gregory, M. D., *Secretary.*

LA CROSSE COUNTY

At a meeting held at St. Francis Hospital, on December 21, the following officers were elected: president, Dr. Geo. W. Lueck; vice-president, Dr. R. E. Flynn; secretary-treasurer, Dr. J. M. Furstman; delegate, Dr. G. J. Egan; alternate, Dr. E. F. Christman.

J. M. Furstman, *Secretary.*

MARINETTE-FLORENCE COUNTY

The Marinette-Florence County Medical Society met at the home of the president, Dr. H. F. Schroeder, on January 12th. An interesting case of Alopecia areata was presented by Dr. Schroeder and discussed by members present, after which Dr. B. F. McGrath, Prof. of Experimental Surgery, Marquette University, gave a lecture on Diverticulitis. The lecture comprised a resume of present knowledge on the subject and also gave information obtained from a great amount of original research work. All was presented so clearly and naturally as to mark

the lecturer an unusual teacher. Every hearer felt he had added materially to his store of knowledge. The Society tendered Dr. McGrath a vote of thanks in appreciation of his long, hard journey to bring to us his splendid lecture. Refreshments were served by Mrs. Schroeder and the Society enjoyed a social half hour at the close of the scientific program.

LUELLA E. AXTELL, M. D., *Secretary.*

MILWAUKEE COUNTY.

Meeting was called to order by the President, Dr. P. F. Rogers. Minutes of the last meeting read and approved. The chairman of the committee investigating the records of Emergency Hospital, Dr. L. F. Jermain, gave a detailed report of this investigation. Motion was made, seconded and carried that the report be accepted and given to the public press for publication. The following resolution introduced by Dr. H. M. Brown was seconded and carried: "Resolved, that it is the sense of the Medical Society of Milwaukee County that this Society go on record as recommending to the proper authorities the return of property to the Johnston heirs, and that the present Emergency Hospital be abolished." The following were elected to membership: Drs. F. E. Brown, J. H. Mountin, G. H. Schlesselman, F. W. Pfisterer and R. E. Fitzgerald. The following resolution introduced by Dr. L. F. Jermain was seconded and carried: "Whereas, no offense against society can be more deplorable and far reaching in its effects than one which is destructive of the confidence and security which the public must have in the prevention of disease and the alleviation of suffering. Therefore, be it resolved, that the Medical Society of Milwaukee County heartily recommend the vigorous manner in which the prosecution of a recent miscreant was conducted by the officials intrusted with this duty." There were 120 present.

MILWAUKEE OTO-OPHTHALMIC SOCIETY

At the Annual Meeting on Jan. 16, 1917, it was moved and seconded that it be the sense of the Milwaukee Oto-Ophthalmic Society that we deplore the fact that our invited guest, Dr. F. C. Murphy of Mason City, Ia., has abused the hospitality of our Society by preparing beforehand an abstract of his paper on "The Circumcision of the Tonsil", read before our Society, for publication by the Associated Press and that furthermore, after having given his order countermanding its publication, the abstract did appear in the daily press, and that a copy of this resolution be sent to the Wisconsin State Medical Journal for publication.

Carried unanimously.

OUTAGAMIE COUNTY

Annual meeting of Outagamie County Medical Society was held on January 9th, 1917, at the Randolph Hotel, Appleton. The following officers were elected: president, Dr. G. A. Ritchie; vice-president, Dr. F. O. Brunckhorst; secretary-treasurer, Dr. M. E. Rideout; censor, Dr. G. T. Hegner; delegate, Dr. M. E. Rideout; alternate, Dr. M. J. Sanborn. At 6:45 about forty doctors sat down to a real banquet. Prof. Charles Elliott of Northwestern Medical School spoke on "Jaundice." Needless to say it was interesting and instructive.

M. E. RIDEOUT, M. D., *Secretary.*

RACINE COUNTY

Racine County Medical Society held its annual meeting on Dec. 14, 1916, at the Hotel Racine. The following officers were elected for the coming year: president, Dr. J. H. Hogan, Racine; vice-president, Dr. C. A. Obertin, Union Grave; secretary, Dr. Susan Jones; delegate, Dr. J. S. Keech; alternate, Dr. G. W. Nott; censor, Dr. J. T. Corr. Dr. L. M. Warfield of Milwaukee addressed the meeting on the subject "The Classification of High Pressure Cases." The members who failed to attend missed a very instructive meeting.

SUSAN JONES, M. D., *Secretary.*
October, 1915.

NEWS ITEMS AND PERSONALS.

DR. PAUL KEENAN, Oregon, is spending a winter vacation in Arizona.

DR. W. H. FORD, Oshkosh, is ill, though not seriously so.

DR. E. A. TITLE, Greenleaf, is ill with typhoid fever.

DR. M. L. SPENCER, Appleton, is ill with diphtheria.

DR. A. T. HOLBROOK, Milwaukee, is convalesing after a recent severe illness, and is now in Florida, where he will remain several weeks.

DR. ARTHUR S. LOEVENHART of the University of Wisconsin has been under treatment in a hospital for an attack of nephritic colic.

DR. F. M. SCHULZ, superintendent of the Milwaukee County Hospital, suffered a fractured left leg in a fall on a slippery walk on Jan. 13.

DR. SIDNEY KNAPP, Platteville, while stepping down from a high walk, slipped and fell, breaking his left leg at the ankle.

DR. G. WINDESHEIM, Kenosha, is nursing a number of bad bruises, the result of a recent automobile accident.

Dr. J. E. Scheurell, Columbus, has recovered from a recent illness and has again taken up his practice.

Dr. F. W. Siegmund, Ripon, is spending a few weeks in California.

Dr. D. R. Flower, Park Falls, is at Charlotte, Iowa, in charge of a brother physician's practice for a short time.

Dr. R. L. Kinney, Milwaukee, has been appointed house physician at South View Hospital, at a salary of $1,500 a year.

Dr. William Healy, director of the Chicago Juvenile Psychopathic Institute, in connection with the Juvenile Court, has accepted an offer to become head of a similar institution in Boston.

Dr. H. E. Purcell has been elected city health officer of Madison to fill the unexpired term of Dr. J. P. Donovan, who recently resigned. The position carries a salary of $1,200 a year.

Drs. A. N. Bodden, R. C. Buelow, J. P. Koehler, L. J. Droznikiewicz, and J. N. Rock, Milwaukee, have been appointed medical examiners for parochial schools, under an ordinance recently passed by the council.

Surgeon Moulton K. Johnson, U. S. N., has been assigned to the Milwaukee navy recruiting station as medical examiner during the absence of assistant Surgeon R. L. Nattkemper, who is in Washington.

Dr. W. E. Maechtle has been placed in charge of the surgical work of all of the West Allis industrial plants, west of 40th Avenue. The companies concerned are the Rosenthal Corn Husker, West Allis Iron, Kearney Trecker, Gerlinger Steel Casting, Federal Malleable Iron, Milwaukee Stamping, Sterling Wheelbarrow, Radcliffe Mfg. Co., Allis-Chalmers and the Kempsmith Mfg. Co.

Dr. Sigmund Graenicher, has resigned his position as curator of invertebrate zoology and botany at the Milwaukee Public Museum, and has gone to Florida to reside. He intends to devote much of his time to the study of the flora and fauna of the Miami region. Previous to taking the position at the museum he practiced medicine in Milwaukee.

Dr. Galen Rood, Stevens Point, celebrated the 87th anniversary of his birth on January 17th. Dr. Rood is a native of Jericho, Vermont and located in Stevens Point in April, 1856. Dr. Rood retired from active practice two years ago.

Dr. O. L. Sapper, Mayville, who left in 1915 to join the German army has received his third decoration for bravery by order of the Kaiser. Dr. Sapper is captain of a cavalry regiment.

Dr. Carl Vogel, Elroy, has been appointed special medical investigator of prison camps in Austria, attached to the American embassy.

Dr. Harry J. Heeb, has been elected president of the Board of Trustees of the Milwaukee Emergency Hospital, Dr. R. W. Blumenthal was chosen secretary, at the recent annual meeting.

Dr. M. J. Rodermund, Madison, was recently arraigned in municipal court, charged with failure to report a case of scarlet fever to the health authorities. He pleaded not guilty and his case is continued.

Fire, on January 18th, destroyed the offices of Drs. M. Oyen and Leland Elliott at River Falls. Dr. Oyen's loss is placed at $1,400 and Dr. Elliott's at $1,200. Insurance partially covered the loss of both.

Dr. W. P. McGrath, Menasha, narrowly escaped serious injury recently when his automobile collided with a street car. Blinding sheets of snow caused the automobile to enter the path of the street car. The machine was badly damaged, but Dr. McGrath escaped with a severe shaking up.

In the case of Drs. John Tasche and H. C. Reich, Sheboygan, defendants in a suit for damages, brought by William Schultz, guardian for Frieda Schultz, an infant, Judge Kirwin has filed a decision in the Sheboygan County Circuit Court sustaining the verdict of the jury. The child is awarded $2,000 in addition to the costs of the action. The case will no doubt be appealed to the Supreme Court.

Dr. J. A. Freudenberg, Milwaukee, defendant in a $30,000 malpractice suit, brought by Mrs. Levonia Wolslegel, who sued as the result of the death of her daughter, charging that the doctor had not exercised sufficient care in performing an operation on the girl's nose and throat, was cleared of the charge by a jury in circuit court on January 19th.

The $10,000 malpractice suit brought by Emil Klingbiel of Brodhead against the estate of the late Dr. N. A. Loofbourow of Monroe, was recently decided in favor of the defendant by the supreme court of Wisconsin. The case in question involved a broken leg. The attorneys for the defendants claimed that it was a case of action for injury, and the statute on this point requires action or intent of action in writing within two years after the injury. The action was not brought until two years and two months had elapsed. The court held that it was an action for injury, and the action not being started or even notification given in writing, upheld the attorneys in the statute they cited, and gave its decision for the defendant.

In the January Journal, in the obituary of Dr. F. D. Bentley, appears a statement that Dr. Bentley erected and maintained the first hospital in Portage. This is an error. The Portage Hospital, started by Dr. Wm. J. Thomson was the first hospital at Portage, and was in operation one year before Dr. Bentley's hospital was erected.

An Ophthalmological Service has been added to the other departments of Bellevue Hospital, New York. Its capacity for the present is 50 beds. The service is in charge of Dr. Charles H. May, who will have as his principal assistants Drs. Julius Wolff and John M. Wheeler.

A movement has been started by Baraboo physicians to build a hospital in that city. The physicians are assisted by the Baraboo Commercial Club, and are looking for a suitable site for the building.

The General Hospital Association, Ashland, closed its campaign for funds on January 25, $40,125 having been subscribed for. The promoters plan to remodel an old residence.

St. Francis Hospital, La Crosse, has just finished its $90,000 additions, consisting of two new wings to the old building, each three stories in height. The whole hospital has been remodeled.

St. Nicholas Hospital, Sheboygan, erected in 1890, will this year be enlarged with a three-story addition.

At the annual meeting of the Wisconsin Association for the Blind held recently in Milwaukee, it was planned to raise $40,000 to establish a home for the blind.

A free dispensary, in connection with St. Mary's Hospital, Green Bay, was opened in January.

A sanatorium for the treatment of diabetes and Bright's disease has been established at West Bend by Dr. D. Webster Lynch.

The purchase of the Herbert Lindsay property near Pewaukee village, for a tuberculosis sanatorium, has been authorized by the Waukesha County Board. The consideration was $16,500.

Nine county sanatoria for the treatment of tuberculosis have been established by the following counties: Brown County, "Hickory Grove," Little Rapids, 23 patients; Eau Claire County, "Mt. Washington," Eau Claire, 37 patients; Kenosha County, "Willowbrook," Kenosha, 21 patients; Manitowoc County, "Maple Crest," Whitelaw, 24 patients; Milwaukee County, "Muirdale," Wauwatosa, 221 patients; Outagamie County, "Riverview," Little Chute, 32 patients; Racine County, "Sunny Rest," Racine, 26 patients; Winnebago County, "Sunnyview," Winnebago, 31 patients; Douglas County, 22 patients.

The charge of selling adulterated drugs will be preferred against more than 35 Milwaukee druggists. This action is contemplated by the District Attorney.

Because of the bad psychological effect of their present names, the legislature will be asked to change the names of three Milwaukee County institutions in Wauwatosa. Dr. A. F. Young, superintendent of the Milwaukee Hospital for the Insane, wants the name of his institution changed to

Milwaukee Psychopathic Hospital; Dr. Wm. F. Beutler wants the Asylum for Chronic Insane changed to Hospital for the Cure of Mental Diseases; Supt. Fred Oeflein wants Milwaukee County Almshouse changed to Milwaukee County Infirmary.

The lake water at Milwaukee is again the cause of numerous cases of intestinal trouble, and warnings have been issued by the health department to boil the water.

On January 25th Milwaukee had 352 cases of scarlet fever as against forty-three on the same date last year. Notwithstanding the great increase in the number of cases over last year, the mortality rate has not shown a corresponding increase. This is attributable to the fact that most of the cases are mild.

Turtle Lake, Wisconsin, has an epidemic of diphtheria. The schools are closed and all public gatherings are called off because of the epidemic.

A number of cases of small-pox have appeared in the vicinity of Hales Corners and St. Martin, and the Health Commissioner of Milwaukee has issued a call for all milk haulers from this section to appear at his office. The law provides that milk shippers or those who haul milk to the city shall report any contagious diseases found along their routes.

Administration of alcoholic beverages in the treatment of disease was condemned in a resolution adopted at a meeting of the Brown-Kewaunee County Medical Society. The question aroused heated discussion with Dr. R. E. Minahan, who introduced William J. Bryan at the Prohibition meeting held recently in Madison, as the leader in favor of the measure.

A string galvanometer, the second to be constructed in the United States has just been completed by J. S. Hipple, instrument maker, employed in the medical department of the University. A German machine was used as a model. A kymograph was also constructed by Mr. Hipple.

Health Commissioner Ruhland has requested an opinion from the city attorney on the legality of the common council enacting an ordinance providing for licensing of lodging houses. A law is favored making the number of boarders dependent on a specified minimum of cubic feet of air per person. It is also desired to extend the provisions of the tenement house regulations to include one and two family houses.

Thirty-two lectures on naval and military sanitation and the treatment of the sick in both branches of the service will be given to the seniors at Marquette University, School of Medicine, during the semester beginning Feb. 1st. The course will be compulsory.

The Supreme Court of the United States on Jan. 8th held California's medical law, exempting Christian Scientists from its working, but including other drugless practitioners, is constitutional and not discriminatory.

The state dairy and food department has started a wholesale prosecution of dealers selling Mrs. Price's Canning Powder in the state. This powder is 99 per cent. boric acid, and is sold as a food preservative in violation of the pure food law. Two dealers have pleaded guilty and paid fines. The company continues the sale of the product in an effort to get the case to the supreme court. Of the cases being prosecuted one will be appealed.

Officials are watching in hopes of beneficial mental results from the sterilization operations on patients at the home for the feeble minded. No ill effects are found. Operations were performed on 22 male patients in July and August, 1915. In May, 1916, 35 female patients were operated on.

The ring that is said to have cleaned up $50,000 in Illinois on medical license frauds is in trouble. The charges are conspiracy to operate a confidence game and conspiracy to obtain money under false pretenses. The grand jury investigation grew out of the exposure of the syndicate of supposed swindlers last July and its attempt to obtain licenses for students before the Illinois State Board of Health. Most of the victims it is said were students of the Davenport College of Chiropractice.

An aggressive campaign to compel physicians and midwives and others to report births which they attend promptly, is being waged by the State

Board of Health. An investigation in Marathon County has recently been made and one physician was found who has not reported births in the present year, although he had attended a large number. Prosecution was started in this case, the physician pleaded guilty and was fined. It is said more investigations will be made in practically every county.

Two measures, seeking safeguards against the spread of communicable diseases were recently offered in the assembly at Madison. Assemblyman Carter's would empower the State Board of Medical Examiners to revoke the license of any physician failing or refusing to diagnose any of the dangerous communicable diseases enumerated in the laws. Revokation may be ordered only on a second offense, annulment to last one year. The other bill by Assemblyman Carter would require the health officer to notify the librarian in a community on the appearance of communicable diseases among school children. It provides that books may not be taken into a home where such a disease exists, and if already there, shall not be returned until thoroughly disinfected under the direction of the health officer.

Senator Fred Baxter of Superior offered a bill in the legislature carrying an appropriation of $50,000 for a new sanatorium for the treatment of tuberculosis. He asks that the institution be built somewhere in the northern part of the state.

The Base Hospital unit of Milwaukee was organized at a meeting held Feb. 6 in the rooms of the Milwaukee Medical Society. Dr. C. A. Evans is Chief of Staff, Dr. J. P. McMahon, Adjutant; Miss Cora V. Nifer, Head of Nursing Department; Dr. L. M. Warfield is Chief of the Medical Staff; Dr. G. C. Ruhland, Chief of Laboratories; Dr. R. H. Ivy, Chief Dental Surgeon.

Dr. Evans has appointed on his staff the following surgeons: Drs. F. J. Gaenslen, P. F. Rogers, H. B. Hitz, E. A. Fletcher, O. R. Lillie, John Gordon, F. P. McMahon. On the Medical staff, besides Dr. Warfield are Drs. L. F. Jermain, O. E. Lademan, A. J. Patek, H. T. Kristjanson, F. A. Thompson. The complete personnel of the unit which comprises not less than 80 people for a 500-bed hospital will rapidly be completed.

DEATHS

Dr. James R. Barnett, 1842-1917. Many of our readers must have experienced a sense of personal loss on hearing of the death on January 29th of Dr. James R. Barnett of Neenah. He was widely known and wherever known, highly esteemed.

Born near Waukesha in 1842 he had spent three-quarters of a century in a life of worthy endeavor in many positions of honor and trust.

As a loyal son of Wisconsin he served through the Civil War in the First Wisconsin Cavalry. Then fitting himself for the practice of medicine and graduating in 1868 he established himself as a skilled, high-minded and wise physician, locating at Neenah after a short period of practice in Illinois. He also ably represented his people for a term in the State Assembly. He was also school superintendent for four years, and served as president of the State Bank of Neenah. He was also given the office of president of the State Medical Society in 1889.

There was no self-seeking in the honor and respect he won. These came to him spontaneously as a tribute to his worth. He was ever modest and retiring in his demeanor and highly appreciative of the merits of others, a loyal friend, a genial companion.

Dr. Barnett had not been in robust health and since the holidays had been confined to the house.

His profession and the community in which he lived will long cherish his memory.

R. D.

Dr. John Winters, La Crosse, died of apoplexy at his office on January 2nd, 1917, aged 61 years. Dr. Winters was a graduate of Bellevue Hospital Medical College in 1883.

Dr. John South, formerly of Monroe, died at his home in Houquiam, Washington, on January 27th, aged 67 years. Death was due to heart failure. Dr. South was born in Alleghany, Pennsylvania, and came with his parents to Monroe at an early age. He was a graduate of the University of Minnesota Medical School in 1889. He first located at Ouray, Colorado, and then removed to Washington, where he resided up to the time of his weath.

Dr. Ambrose J. Jones, Dellon, Sauk County,

died on Jan. 11, 1917, aged 97 years. Dr. Jones was one of the oldest practicing physicians in the State, having begun his practice in 1844. Dr. Jones served as a surgeon in the Civil War. He was born in Canajoharie, Montgomery County, New York.

Dr. G. P. Kingsley, Madison, died on Jan. 3rd, 1917. George Picket Kingsley was born at Adamsville, Cass County, Michigan, April 14th, 1843. He came to Wisconsin with his parents in the spring of 1854, settling in the town of Springfield, Dane County. He moved to Madison in 1886, where he resided up to the time of his death. He was a graduate of the University of Missouri, School of Medicine.

Dr. O. W. Burns, Winneconne, died on January 17, aged 66 years. Death was due to heart failure. Dr. Burns was born in Washington, Maine, where he spent his boyhood and received his early education. He was a graduate of Dartmouth Medical School, Hanover, New Hampshire, in 1877. Dr. Burns was a member of Winnebago County and the State Medical Societies.

Dr. Charles L. Kissling, Milwaukee, died on January 19th, aged 59 years. Dr. Kissling was born in Milwaukee, the son of Dr. Leopold Kissling, an early practitioner of that city, and was educated in the public schools. Dr. Kissling was graduated from the University of Munich in 1886. He was a member of the school board for sixteen years. Dr. Kissling was a member of the Medical Society of Milwaukee County and the State Medical Society.

REMOVALS

Dr. Paul H. Dietrich, Ashland to Detroit, Mich.

Dr. Wm. Lumsden, Clayton to Knapp.

Dr. M. H. Rice, Cameron to Ripon.

Dr. Ralph Kaysen, Watertown to Chicago.

Dr. G. A. Natvig, Bloomer to Prairie Farm.

Dr. John B. Conroy, New Lisbon to Milwaukee.

Dr. E. E. Gouch, Antigo to Milwaukee.

Dr. Warren Coumbe, Blue River to Richland Center.

Dr. Elmer Newton, Windsor to Hudson.

Dr. Riley J. Alcorn, Sister Bay to Sturgeon Bay.

Dr. Geo. A. Conrey has located at Richmond.

MARQUETTE NEWS NOTES.

A survey of the medical service offered to employes of all the larger industrial plants in Milwaukee is being made by the social service department of the University. The purpose of the survey is to avoid duplication in this work and to secure a better co-operation with employers and factory physicians in cases which require special or long-continued treatment.

On Jan. 19th Dr. W. S. Miller of the Department of Anatomy in the State University of Wisconsin lectured before the student body on the "Lymphatics of the Lungs". This lecture was the first of a series of exchange lectures between the faculties of Marquette University Medical School and the medical department of the State University of Wisconsin.

1,286 patients were treated in the Marquette dispensary during the month of December. Of this number 430 were treated in the departments of Eye, Ear, Nose and Throat. There were 139 surgical cases, 152 medical cases. 198 new patients were admitted.

Several members of the Marquette medical staff who have been serving in the U. S. Medical Corpse at the border have returned. Among these are Dr. Bruins and Dr. Blumenthal, first lieutenants in the First Regiment of the Wisconsin Medical Guard, and Dr. Hogue who was Captain of the Wisconsin Field Hospital.

Complete metabolic studies of two cases of alkaptonuria are being made by Dr. Farmer in the department of chemistry. These cases occur in two brothers aged 3 and 11. The results of these studies will be published at a later date.

The Social Service Department of the Marquette Dispensary Clinic is beginning some intensive work on a group of cases in the childrens' department. This group includes cardiac disease, chorea, malnutrition and other condition where the home surroundings are an important factor. Home visits are being made and steps taken to improve the conditions under which the patients are living so as to facilitate recovery and prevent recurrence of the trouble.

Father Moulinier, regent of the Marquette Medical College, attended the conference of the 95 medical schools of the U. S. at the office of the Secretary of War at Washington, D. C. on January 6th. The purpose of this conference was to consider the adoption of a curriculum for senior medical classes, which would provide instructions by army medical officers in the fundamental military usages and tactics with which an officer of the medical section of officers' reserve corps should be familiar.

Resolutions urging the immediate adoption of military training of medical students by all the medical schools in the United States, and provisions for the military training of civilian practitioners, were forcefully presented by Dr. Victor C. Vaughan, dean of the University of Michigan Medical School, and Dr. Arthur A. Law, of the Medical School of the Minnesota University. These were enthusiastically adopted.

Dr. Franklin Martin of Chicago, who was instrumental in calling together this conference said "the importance of co-operation between departments of War and Navy and the Medical Colleges is apparent when one realizes that this action will furnish 3,000 young medical men fairly well equipped for the medical military service on June 1st, the date of their graduation this year."

Marquette is in hearty accord with the request of Sergeant General W. C. Gorgas of the U. S. Army has asked him to send them an army medical officer or officers to give the 32 lectures in military service from the medical viewpoint some time during the second semester. The exact time has not been definitely arranged but it will probably be two hours of night work each week.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

WHAT ORGANIZATION HAS DONE FOR THE NURSING PROFESSION.

Those who do not read the American Journal of Nursing or attend nurses' meetings may not stop to realize what organization and legislation have done to elevate the nursing profession and make it what it is today. What state organization has done is manifest in the fact that forty-three states including the District of Columbia have secured nurse practice acts. Nurses are being sought for all kinds of positions. From the original narrow scope of private duty and institutional work the field now includes twenty-five or thirty distinct lines of activity, including social and philanthropic work, taking the nurse as an educator and administrator into homes, shops, factories, schools and colleges. Because of their training, nurses are peculiarly fitted for this work and are constantly being sought and preferred for it; so rapid has been the expansion that it has been impossible to meet the demand.

The Government gives high recognition to the profession when it requires registration for all nurses who enter its army and navy nurse corps; the National Red Cross also gives it the same honor by making registration one of its requirements for enrollment.

Most cities show appreciation of high standards for the profession by requiring all municipal nurses, school, tuberculosis, child welfare, etc., to be registered. Training Schools throughout the country are working toward standard curricula aiming at least to meet the minimum requirements of the state board of nurse examiners.

Womens' clubs recognize the value of nurses' work on their committees for civic and philanthropic work, and it is because they are trained workers; whatever tasks they undertake show the result of this training.

If there is any doubt as to the benefit of organization we have only to look at what the medical profession is today, a power for good in every community and through their county, state and national organizations represent a mighty force for the betterment of conditions everywhere. The

physician who does not belong to one or more of these organizations is looked upon with suspicion or is considered an old fogy.

Every nurse needs the inspiration of organization work to keep her alive and in touch with what is going on in the nursing world. We owe all of the advanced work of the nursing profession to organization; to the state organizations we owe registration and the recognition of nursing as a profession. Without affiliation or formal association there would be little opportunity for growth or broadening of our professional outlook.

The opportunities afforded any nurse through the alumnae of her school, the county and state societies cannot be estimated and when the women who are the leaders in our profession with years of experience back of them, urge it upon us, why should we doubt it?

Let us then not be content to remain where we are but be alert to the opportunities about us for service to others and direct our efforts toward the things that will be of mutual benefit and which can best be attained through co-operation and organization.

NURSES ASKED TO FIGHT CANCER.

Nurses, especially those engaged in public health work, can do much to prevent unnecessary deaths from cancer, according to a special bulletin published today by the American Society for the Control of Cancer. Many patients, especially women, it is pointed out, will speak to a nurse about the danger signals of this disease, such as lumps, persistent sores, ulcerations and other irregularities, when they would hesitate to call a doctor. Attention to these apparently trivial conditions, says the bulletin, often means the actual prevention of cancer or at least its discovery in the early stages when the hope of cure is greatest.

In promoting the special education of nurses so that they may be prepared to act as advance scouts in discovering this insidious enemy, the Society for the Control of Cancer has obtained the co-operation of national, state and local nurses' associations. All the leading schools of nursing have been urged to provide special lectures on the early signs of this disease so that nurses, when they take up their professional work may be equipped with the necessary knowledge, not to make a diagnosis themselves but to see that people with suspicious symptoms receive prompt and competent professional advice. Through the co-operation of the National Organization for Public Health Nursing, the special bulletin above referred to, is being sent to several thousand visiting nurses' associations and prominent individual nurses throughout the country. Copies may also be obtained from the American Society for the Control of Cancer, 25 West 45th Street, New York City.

UNIVERSITY EDUCATION FOR NURSES.*

BY LOUISE M. POWELL,

PRINCIPIL OF TRAINING SCHOOL AND DIRECTRESS OF NURSES OF THE UNIVERSITY HOSPITALS,

MINNEAPOLIS, MINNESOTA.

When I come into a state like Wisconsin, which has a University that has interested itself in everything practical except nursing, I cannot refrain from telling our experience in Minnesota in the hope that our example may be followed, and that right soon.

Why should State Universities feel that they are bound to educate doctors, lawyers, teachers, chemists, farmers and be exempt from taking a hand in the education of the nurse?

Is she not more and more becoming a public servant? Is it not being shown every year that the results of the teacher in the schools are tremendously enhanced by the nurse? I feel sure that today in New York City there would be few to say that the Board of Education could, or would do its work without nurses.

Let us look for a moment at the ever-widening field of the trained nurse, and then consider whether an eighth grade course is enough by way of educational preparation.

There will always be a call for the private nurse, who must be fitted for this work by temperament and training. Those who have executive ability may turn to the institutional and administrative field, those who are interested in the educational and scientific phases of the work may become superintendents, teachers, assistants in laboratories; while there seems to be no limit to the variety offered in the field of public health nursing, school

*Read at the State Meeting of Nurses in October, 1916.

nurse, visiting nurse, tuberculosis nurse, industrial nurse, infant welfare nurse, hospital social service nurse, every variety. Many social workers are feeling the need of medical training in their work.

Think of the fields as yet almost untouched by the professional nurse, the whole field of mental hygiene, the almshouses, that are calling for trained service, the midwife problem, all needing strong leaders for pioneer work. "In a recent address by Lady Helen Monroe Ferguson on 'The Nurse as a Citizen' she congratulates nurses on the fact that their horizon instead of being narrowed is constantly being set farther back, and that their work instead of tending to contraction of character and impoverishment of soul, tends to bring into play every quality which they possess. The possibilities of social usefulness and of self-development are limited only by their own capacity."

When we look out over this field and realize what is needed to prepare women to take these positions, we must feel the importance of thorough education preliminary to the specific nurses training and realize that this must be a real training and not as is too often the case a more or less limited experience in nursing the sick.

More and more will the public demand broadly educated, well trained women, and to whom can we more fittingly turn to help us in giving this preparation than to our State Universities, whose sole function is to prepare its sons and daughters for their life work?

Now, may I tell you what Minnesota is doing for her women who wish to become professional nurses?

She has created a department in the University under the Medical School, called the School for Nurses and at the same time started a teaching hospital in which to teach both students and nurses.

This school has its own head, a nurse who is a member of the Faculty of the Medical School.

To enter this school, women must have just the same educational credentials that they must have to enter the College of Science, Literature and the Arts. This ensures full high school education, uniformly, as a minimum, no exceptions being made.

What benefit does the student get from this connection with the University during her training?

1. The student gets her preliminary course, which covers Anatomy, Physiology, Chemistry, Bacteriology, Pharmacology and some subjects related to nursing and the Hospital, given by expert teachers, in well-equipped laboratories, with time enough allowed to get a real knowledge of the subject.

2. The student comes to this work fresh and eager, her surroundings are stimulating. Surrounded by students, in an atmosphere of study, she gets that attitude of mind.

3. The fact that she is paying for this course enhances its value, and makes it seem worth while.

4. The fact that the nurse takes part in University functions and has her place on programmes and in the Annual puts her on the same footing as other students.

5. The fact that her records are kept in the Registrar's office, not only during the preliminary course, but throughout her training, keeps her in touch with the University, and makes it necessary that classes be held regularly and grades accurately kept.

So much for the period during which the student is in the University exclusively.

Are there any advantages during the later years of training? Very many I should say. The head of the school attached to the University does not feel that favors are being granted when a doctor comes to lecture to nurses, on the contrary she feels that the doctor is being paid by the University for doing this and she can expect that it will not be considered a secondary matter to be done if there is not something more important, consequently lectures are more regularly and are better prepared.

Another point in its favor, there is a larger number of men to draw from and when it is found that one man is not interested or does not come, or fails to put his subject over, as the boys say, the head of the school may leave him off the list the next year and choose the men who have given satisfaction. I think one of the strongest points in favor of this University affiliation for training schools is the fact that the hospital is looked upon as the nurse's laboratory. Her sole function is not to do the work of the hospital, but with reasonable hours on duty to do all she can for patients and hospital, at the same time being given enough time to enable her to study and keep herself in condition to reap the benefit of her training.

When nurses are scarce and the work becomes so heavy that to do it would mean lengthening the hours on duty, and neglecting classes we can say, "These are University students, their time is

needed for study, we cannot increase their hours of work, you must employ nurses for the extra work." I have never failed to have this demand met, and feel that it is due to the fact that the University feels responsible for the education of the nurse.

There are three distinct advantages, as I see it, that accrue to the hospital by reason of this affiliation, aside from the more intelligent service that must come from well prepared students.

1. The hospital is relieved of the burden and expense of providing that part of the nurse's education which can just as well be given outside of the hospital, and this expense is shared by the state and the student.

2. It shortens the time during which you have probationers on the wards, because with the four months preliminary course and *two months* of probation your student is well prepared to go into the full uniform of the school.

3. If the labor leaders try to force upon you a 48-hour week, as was done in California, the school affiliated with a University, where nurses are really students, paying a fee and not being paid a wage, could not be affected by this law.

I realize that here in Wisconsin you have not the teaching hospital at the University, but I am sure if there were enough demand by the hospitals in the State for the preliminary course in the University, it would be put in.

Now, may I tell you of an idea which we in Minneapolis have borrowed from Philadelphia and are trying to carry out this winter.

We all know that a favorite and just criticism of our theoretical teaching in training schools is that it is haphazard and not well done. We have to depend on the doctors for lectures, these are many times ill-organized and irregular; if these lectures are followed by classes, the classes are held by nurses, who very often know their subject well, but do not know how to get the knowledge over to the class. What we need is a technique of teaching, some methods of teaching applied to our specific work.

We are going to have given this fall by members of the faculty of the School of Education in the University a course on the technique of teaching in training schools. We expect to have superintendents, assistants, instructors and head nurse teachers attend. This was most successfully done last year in Philadelphia by the League of Nursing Education. You could certainly get this in Wisconsin.

Another suggestion and I am through.

I have found very helpful, and here again I am borrowing an idea and working it out to suit my problem, the practice of planning a course of lectures in the training school, for example Surgical Nursing, with lecture and class work correlated. The lecture given by the doctor, the class given by the Surgical Nurse, she taking up in class any practical nursing treatment that has been mentioned and giving it according to the method in vogue in the particular hospital, thus: Lecture—general anesthesia. Class — preparation of anesthetist's tray, preparation of patient for anesthesia; after care of patient, etc., and so on through the course.

I have planned these courses in all subjects and besides finding it helpful to the nurse teacher, we get a more logical, better prepared course for the nurses. I might say I submit these outlines to the men who give the lectures for criticism.

Don't think anything I have said about University affiliation is impractical, it isn't. We are doing it in Minnesota, it can be done elsewhere.

NEWS ITEMS AND PERSONALS

The La Crosse Graduate Nurses' Association held its annual meeting at the Lutheran Hospital Nurses' Home, Jan. 3, 1917. The following officers were elected: President, Miss Eleanor Zuppuan; Secretary, Miss Anna Dastyeh; Treasurer, Miss Marie Peterson. After the business session a social hour was spent and lunch served by senior pupils of the school.

On Jan. 4th the officers of the La Crosse Graduate Nurses' Association were hostesses at a sleigh ride for the members of the County Society, after which they were entertained at the Nurses' Home of the Lutheran Hospital.

The regular monthly meeting of the Milwaukee County Nurses' Association was held the second Tuesday in January at the Nurses' Club, 566 Van Buren Street. After a short business session, a most interesting and instructive talk was given by Mr. W. J. Kershaw on "The American Indian of Today."

The American Red Cross Nursing Service is urging the organization of Emergency Detachments of Nurses to relieve nurses who were sent to the Mexican Border for Military Hospital Service six months ago. Milwaukee and Madison are each organizing one of these groups of nurses to be ready for this service when needed. Three

members of the Madison Detachment have already been assigned to duty in Eagle Pass, Texas, and others are expecting to be called at any time. The nurses who have gone from Madison are, Miss Francis Ochsner, Miss Sarah E. Albers, and Miss Francis Hessman.

In the death of James R. Barnette, M. D., Sr., not only the physicians but the nurses of the Fox River Valley suffer a distinct loss. The influence of the Grand Old Man was so benign and noble that it became contagious.

Miss Grace Palmbach is quite seriously ill at her home in suburban Appleton, in consequence of strenuous work. The inequality of supply and demand have overworked all the available nurses in this vicinity.

The Valley Players, an amateur company organized and trained by Mr. T. E. McGillan of Chicago, will play "Where the Trail Divides" at the Neenah Opera House on Feb. 16, for the benefit of Theda Clark Memorial Hospital. This promises to be an entire success.

Miss Ida Kuehl, one of Neenah's popular teachers, has resigned her position and entered the Theda Clark Memorial Hospital School for Nurses.

BOOK REVIEWS

The Healthy Girl. By Mrs. Joseph Cunning, M. B. (Lond.), Hon. Med. Director to the Open-air school in the London Botanical Gardens, and A. Campbell, B. A., lecturer in Biology and Hygiene, Technical Institution, Swindon. Price, $1.75. London. Henry Frowde—Oxford University Press—Hodder & Stoughton, Warwick Square, E. C. 1916. American branch, 35 West 32nd St., New York.

This little book is an attempt on the part of the authors to help the girl who is of school age and who is leaving school to face life with at least some knowledge of herself and of her relation to her sex life. The text is necessarily simple, the illustrations diagrammatic, but the matter is sane and should be of value to girls who do not get home training. Too frequently parents allow their children to grow up in complete ignorance of their sex physiology. That the girls learn it, is true, but they learn usually a perverted form from playmates or older, and possibly not strictly pure-minded women.

Some chapters in the book deal with school life and should be helpful to mothers and teachers.

The book is quite readable and apparently answers the purpose for which it was written.

Blood-Pressure. From the Clinical Standpoint by Francis Ashley Faught, M. D. Formerly Director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Second edition, thoroughly revised. Octavo of 478 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1916. Price, $3.25 net.

Blood pressure is still a subject about which much has been written but concerning which comparatively little is really known. Popularly it is regarded as the very most important information one can have. It has been abused and often made to serve as a cloak for dense ignorance. Any information on the subject is therefore welcome.

In the second edition of Dr. Faught's book he has given us a very sane discussion of the whole subject. There is much said which is more or less conjecture, but on the whole it is a safe book for anyone to use. It is naturally partial to the various Faught sphygmomanometers.

For those who wish a book on blood pressure we have no hesitancy in recommending this one. It should be remembered, however, that our knowledge is still in a formative stage, therefore conclusions drawn by the author are not to be taken as the last word.

A Text-Book of Organic Chemistry, for students of Medicine and Biology by E. V. McCollum, Ph. D., Professor of Agricultural Chemistry, University of Wisconsin. The Macmillan Company, Publishers, New York, 1916. Price, $2.25.

The author has not attempted an exhaustive treatise on Organic Chemistry, but has endeavored to present an outline of the subject designed as an introduction to the greater subject. To this end, and having in mind that his book is for students of Medicine and Biology, he has eliminated useless details and laboratory experiments in order to concentrate on the discussion of the place which the organic compounds occupy. He says that it is his belief that "if properly presented, the theory of organic chemistry never fails to arouse the interest of a bright-mided student". Further, "in all cases the effort has been made to select for purposes of illustration those compounds which have biological importance rather than technical."

The author seems to have presented a very concise book which should be of value to those for whom it was especially written.

Fractures and Dislocations with special reference to their pathology, diagnosis and treatment by Kellogg Speed, S. B., M. D., F. A. C. S., associate in Surgery, Northwestern University Medical School; Associate Surgeon Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Ill. Illustrated with 656 engravings. Lea & Febiger, Publishers, Philadelphia and New York.

This voluminous tome is of the kind that by its bulk makes one despair of getting at just what one wants. There is a mass of opinion, plenty of ancient history and nothing in particular that is new. The medical student required to devour such an enormous bolus would have little time for his other studies, and the surgeon who is looking for an opinion or modus operandi, is soon lost in the maze.

As an historical work it may do for a library, but as a ready help in time of need this book is not what a surgeon wishes. The new bone-graft work is not mentioned in many fractures where it holds first place in treatment, and there seems to be no new helpful ideas offered.

E. A. S.

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ORIGINAL ARTICLES

PRENATAL AND NATAL CONDITIONS IN WISCONSIN.*

BY DOROTHY REED MENDENHALL, A. B., M. D.,

MADISON.

For some years, certain facts concerning the infant mortality rates and the conditions surrounding childbearing in Wisconsin have furnished public health workers with considerable interest and food for speculation. The request of your Committee on Health and Public Education for a paper on prenatal and natal conditions in our State has furnished me with the opportunity to study more closely the problem of maternal mortality and infant mortality, and to prove or disprove some of the theories that have been held as to certain peculiarities appearing in Wisconsin.

Through the courtesy of Dr. Harper and Mr. Hutchcroft of the State Board of Health, the material in the state archives has been put at my disposal, and I also wish to thank Dr. Harper and Mr. Hutchcroft for many valuable suggestions.

Since time and assistance were limited, it was decided in the first place to confine most of our attention to the year 1915. Three questions, which bore directly on the problem of prenatal and natal conditions, suggested themselves for solution. These were: first, the question of the causation of death in infants dying the first few weeks after birth, as well as the analysis of the causes of the total infant mortality for the state; second, the question of who delivers the Wisconsin baby, and what percentage is delivered by midwives; third, the question of the extent of puerperal sepsis, where it occurs, and whether it is being reduced.

The Causes of Infant Mortality.

To analyze the causes of death the first month of life for 1915, it was necessary to go over all the death certificates (26,676) and to classify all the children dying stillborn, the first day, the first week, and the first month of life. We also tried to determine how many children died from each of the accepted causes of death the first year of life. From data obtained from the death certificates, we were able to make tables showing the number of deaths the first day, week, month, and year of life for the rural counties, the twenty cities over 10,000 population, and the rural parts of the urban counties. Also a table was made showing the cause of death the first month of life in all the counties separately and in the twenty large cities.

As the city registration is so much more complete than in the counties outside of cities, in Tables 1, 2, and 3 comparison has been made of deaths the first day, week and month of life in the twenty cities; and the percentage of death from congenital malformation, early infancy, infections and convulsions is given in detail for each city. Convulsions as a cause of death should not be allowed, as it is only a symptom of a condition; yet Milwaukee had 47 deaths under one month of age where no other diagnosis was given, and in several other cities there was a very high percentage of deaths under this heading.

To give briefly our findings in regard to the causation of infant deaths: in Wisconsin the infant death rate is falling and is in general not excessively high; but there is no decline in the deaths the first few weeks of life. The work done to save the babies has not as yet affected those who die at birth, who are too injured, too diseased, or too weak to live. The health of the mother and the care she receives in pregnancy, in confinement and in the lying-in period, must be studied if we wish to save the children who die at birth.

In 1915 in Wisconsin:

	Children's Bureau Est. In the U. S. in 1911.
53.3 per cent. of infant deaths occurred in first month	42%
38.6 per cent. of infant deaths occurred in first week	27%

*Read at the 70th Annual Meeting of the Wisconsin State Medical Society, Oct. 4-6, 1916.

Table 2.

INFANT DEATHS BY DAYS IN WISCONSIN CITIES, 1915.

	Deaths 1 day and under	Deaths 2-8 inc.	Deaths 8-31 inc.	Total 1st mo.	Deaths 1st year	Still Births	Maternal Deaths
Milwaukee	251	118	141	510	1101	394	44
Superior	20	4	13	37	71	31	4
Racine	16	20	27	63	112	50	12
Oshkosh	25	12	5	42	67	19	6
Sheboygan	19	1	11	31	69	33	4
Green Bay	15	7	12	34	94	38	14
La Crosse	13	1	5	19	29	27	5
Madison	18	9	4	31	46	25	7
Kenosha	18	11	10	39	69	27	7
Appleton	5	5	6	16	28	10	3
Ashland	9	3	3	15	18	6	1
Beloit	12	4	3	19	28	10	4
Eau Claire	5	7	4	16	22	17	5
Fond du Lac	17	3	5	25	35	14	4
Janesville	5	2	4	11	21	8	1
Manitowoc	7	4	5	16	24	13	..
Marinette	8	8	6	22	38	12	2
Wausau	3	7	6	16	34	20	5
Waukesha	4	3	2	9	10	6	..
West Allis	2	4	3	13	32	11	1
Total Cities	470	233	275	982	1948	770	129

Percentage of deaths 1st day of deaths 1st year.... 24.1
Percentage of deaths 1st week of deaths 1st year... 36.1
Percentage of deaths 1st month of deaths 1st year.. 50.3

Table 3.

CAUSES OF DEATH FIRST MONTH OF LIFE, 1915.

Name of City	Total deaths 1st month	Death rate 1st month per 1,000 live births	Prematurity		Death from malf., birth inj., cong. deb., and other causes of early infancy		Death from infections, pneum. gastro-enteritis, etc.		Deaths from convulsions & unclassified	
			Total No.	%	Total	% of deaths 1st month	Total	% of deaths 1st month	Total	% of deaths 1st month
Milwaukee	510	36.3	152	29.8	217	42.5	59	11.6	48	9.4
Superior	37	46.1	18	48.6	13	35.2	4	10.8	0	0.0
Racine	63	49.0	25	39.7	24	38.0	6	9.5	6	9.5
Oshkosh	42	53.6	19	45.2	15	35.8	0	0.0	4	9.6
Sheboygan	31	37.4	8	25.8	11	35.5	2	6.5	6	19.3
Green Bay	34	44.6	19	55.9	8	23.6	4	11.8	1	2.9
La Crosse	17	27.8	7	41.2	9	52.9	1	5.8	0	0.0
Madison	31	46.1	12	38.7	10	32.3	2	6.5	4	12.9
Kenosha	39	44.7	7	17.9	15	38.5	6	15.4	3	7.7
Appleton	16	52.7	4	25.0	5	31.3	2	12.5	0	0.0
Ashland	15	65.8	4	26.7	9	60.0	0	0.0	0	0.0
Beloit	19	46.9	12	63.1	4	21.1	1	5.3	0	0.0
Eau Claire	16	34.2	5	31.3	8	50.0	3	18.7	0	0.0
Fond du Lac	25	54.1	10	40.1	9	40.0	1	4.0	4	16.0
Janesville	11	39.3	3	27.3	5	45.5	1	9.1	0	0.0
Manitowoc	16	46.7	3	18.8	11	68.8	1	6.2	1	6.2
Marinette	22	66.5	9	40.9	12	54.6	0	0.0	0	0.0
Wausau	16	37.0	2	12.5	3	18.8	3	18.7	6	37.5
*Waukesha	9	107.0	2	22.2	6	66.6	0	0.0	0	0.0
West Allis	13	40.2	5	38.5	6	46.2	1	7.7	0	0.0
Total Cities	982	45.7	326	33.2	400	40.8	97	9.9	83	8.5

*Waukesha death rate 1st month is due to inadequate birth registration.

Lack of care after confinement from similar causes, and the overwork of the parturient mother, have an undoubtedly bad influence on the life of the new born child as well as on the health of the mother.

3. Poverty. All public health problems are rendered more difficult of solution by poverty. Yet this factor is not so great in Wisconsin as in many states, and is probably of less influence in the rural districts than in the cities.

4. Isolation. People living on isolated farms, or outside of cities, can not avail themselves of the varied forms of medical and nursing care, and the many branches or organized charity open to the poor of the city. They cannot seek relief in sickness from hospitals, dispensaries, free clinics, visiting nurses or the associated charities. Distance often prevents the family having medical assistance at all, even if their means permitted their paying for it.

5. Lack of skilled assistance at confinement. As a rule the towns attract the best trained physicians, leaving the most inadequate for the rural districts. A large proportion of all infants in Wisconsin are brought into the world without proper skilled assistance, either from the ignorance, the isolation or the poverty of the family, or because the physician or midwife called in attendance is not qualified to conduct a confinement case. A study of puerperal conditions in this state leads one to emphasize the necessity of raising the standard of medical education, as well as of tightening the requirements for license to practice.

The problem of childbearing for our city woman is influenced by slightly different factors. Ignorance and poverty are often more serious; isolation disappears, but in its place come tenement conditions, overcrowding, filth, lack of fresh air, bad milk, and the evils of city life. Factory life and working out by the day, present new dangers for the mother and the child, still little appreciated by the general public. The hospital and nursing aids to the city poor are well known to all of us. Whether in the country or in the city, there is a crying need for better trained physicians, better obstetrics or midwifery, and better care during the lying-in period for all women.

The Problem of Midwifery in Wisconsin.

The midwife question during the past few years has been one of the most discussed topics at medical meetings. In making a survey of the obstetrical situation in Wisconsin, one of the three points which were first considered for investigation was, "Who delivers the Wisconsin baby?" I feel it necessary to state that with most public health workers, I have formerly over-estimated the prevalence of midwifery in Wisconsin, and probably too have exaggerated its evils.

We have prepared from the 1915 birth certificates, including the stillbirths reported as births, a tabulation for the counties as a whole, and for the twenty cities separately, of the attendance at confinement whether by physician, midwife, or other person. In the entire state, 7,555 cases were delivered by midwives, or 12.9 per cent. of all certificates, and 2,156 or 3.7 per cent., by persons other than doctors or nurses, often the grandmother or grandfather. In the cities, 5,172 cases were delivered by midwives, or 25.7 per cent., and 73 by unskilled persons, or only .3 per cent. Therefore just about 1-6 of the births including stillbirths, registered in the state in 1915 were unattended by licensed physicians.

This fact and a study of the comparative puerperal deaths in the large cities as related to the cases delivered by midwives does away, I believe,

Table 4.

RELATION OF MIDWIFERY TO DEATHS FROM CHILDBIRTH.

CITY	Per cent. of total births attended by midwives	Deaths from childbirth per 1,000 live births	Deaths from puerperal sepsis per 1,000 live births
Racine	49.4	9.3	3.1
Eau Claire	40.1	10.7	2.1
Kenosha	38.6	8.0	5.7
Janesville	37.9	3.6	3.6
Marinette	28.5	6.0	3.0
Appleton	28.1	9.9	6.6
Milwaukee	26.0	3.9	1.4
Sheboygan	24.0	4.8	0.0
Oshkosh	21.9	7.6	1.3
Manitowoc	16.4	0.0	0.0
Superior	12.7	5.0	4.0
La Crosse	12.2	8.4	5.0
Ashland	10.1	4.4	0.0
Wausau	7.1	11.5	6.9
Madison	6.6	10.4	4.5
West Allis	3.1	3.1	0.0
Fond du Lac	1.1	8.6	2.2
Green Bay	0.89	18.4	9.2
Beloit	0.0	9.9	4.9
Waukesha	0.0	0.0	0.0

with any claim that the high infant and puerperal death rates in Wisconsin are due to the prevalence of midwifery.

The midwifery rates in this table for our 20 large cities are on the whole somewhat in inverse ratio to the puerperal and puerperal sepsis death rates.

About all that we can say in general about the table of midwifery in cities, is that what evidence it furnishes goes to disprove the contention that deaths from childbirth as well as puerperal sepsis are more frequent in the practice of midwives than in the practice of physicians. The objection can be made to this that in the fatal cases of childbirth conducted by midwives, a physician was probably called in and had to assume responsibility for the case. If this occurred to any extent, there should be a higher infant death rate from cities where midwivery flourishes and a lower infant death rate where there are few if any midwives. This is not true in general. On the contrary, Eau Claire with 40.1 per cent. of midwives cases, reported the lowest infant death rate in 1915.

Also a close personal scrutiny of all the death certificates of 1915 revealed only a few cases where the physician signing the death certificate of a baby or a mother stated he was called in by a midwife, and it is natural to believe that few physicians would fail to report this fact if it were true.

No, to be honest, we must admit that the midwife is, on the whole, probably less culpable in regard to the deaths of parturient women than the physicians in the state, and also that there is no evidence to warrant the assumption that infant mortality during the first weeks of life is greater where midwives are largely employed, than when physicians deliver the child.

Our findings in regard to puerperal deaths in Wisconsin in 1915 would seem to substantiate Dr. J. Whitridge Williams' questions: "Do more women die from puerperal infection in the practice of midwives or of general practitioners?" and "Do as many women die from improperly performed operations in the hands of general practitioners as from puerperal infection in the hands of midwives."

In Tables 5 and 6 the deaths under one week, and the stillbirths are compared with the puerperal deaths in cities where the puerperal death rate was over five per 1,000 live births.

"The relationship between a small loss of infant life by stillbirths and a small loss of mothers' lives from childbearing" which Newsholme suggested might be expected to hold good, may be traced in this table. On the whole the highest rates for stillbirths accompany the highest maternal death rates.

On the other hand, there does not seem to be any relation between the death rate the first week of life and the puerperal death rate. Except in Madison, where there are 40.2 deaths the first week of life per 1,000 live births, in Fond du Lac with the rate of 43.2, and in Beloit with the rate of 39.5, no one of the ten cities with the highest maternal death rates exceeds the state average 1915 death rate the first week of life, of 32. It may also be added that neither in Madison, Beloit, nor in Fond du Lac is midwifery prevalent.

Table 5.

Name of City	Deaths from Puerp. state per 1,000 live births	Deaths 1st week of life per 1,000 live births	Deaths from still births per 1,000 live births	Per cent. of Midwives
Green Bay	18.4	28.8	49.8	.89
Wausau	11.5	23.1	46.2	7.1
Eau Claire	10.7	25.6	36.3	40.1
Madison	10.4	40.2	37.3	6.6
Appleton	9.9	32.9	52.6	28.1
Beloit	9.9	39.5	24.8	0.0
Racine	9.3	27.9	38.8	49.4
Fond du Lac.....	8.6	43.2	30.3	1.1
La Crosse	8.2	19.6	44.0	12.2
Kenosha	8.0	33.2	30.9	38.6
Oshkosh	7.6	46.6	24.0	21.9
Marinette	6.0	48.1	36.2	28.5
Superior	5.0	27.8	38.6	12.7

Maternal Mortality.

This brings us to the third part of our inquiry, the question of natal conditions in Wisconsin. The ghost of midwifery having been laid, and the point settled that over five-sixths of the infants born in Wisconsin at the present time are delivered by licensed physicians, we shall examine briefly into the present status of deaths from childbirth in the United States as compared with other countries, and of deaths from childbirth in Wisconsin as compared with deaths in the total United States.

Prominent obstetricians and the experts of the Children's Bureau have pointed out to us for some time that not only was the death rate from all puerperal causes and from puerperal sepsis as a whole, greater in the United States than in Great Britain

Table 6.

COMPARISON OF MORTALITY FIRST WEEK OF LIFE, STILLBIRTHS AND MORTALITY FROM CHILD-BIRTH, WISCONSIN CITIES, 1915.

Name of Cities	Live Births	Mortality 1st week of life		Mortality from total puerp state		Mortality from puerp. sepsis		Still Births	
		Total	Rate per 1,000 Live Births	Total	Rate per 1,000 Live Births		Rate per 1,000 Live Births	Total	Rate per 1,000 Live Births
Milwaukee	11,248	369	32.8	44	3.9	16	1.4	394	35.0
Superior	802	24	27.8	4	5.0	2	2.5	31	38.6
Racine	1,287	36	27.9	12	9.3	4	3.1	50	38.8
Oshkosh	794	37	46.6	6	7.6	1	1.3	19	24.0
Sheboygan	829	20	24.2	4	4.8	0	...	33	39.8
Green Bay	763	22	28.8	14	18.4	7	9.2	38	49.8
La Crosse	612	12	19.6	5	8.2	3	4.9	27	44.0
Madison	671	27	40.2	7	10.4	3	4.5	25	37.3
Kenosha	874	29	33.2	7	8.0	5	5.7	27	30.9
Appleton	304	10	32.9	3	9.9	2	6.6	10	52.6
Ashland	228	12	52.6	1	4.4	0	...	6	26.4
Beloit	405	16	39.5	4	9.9	2	4.9	10	24.8
Eau Claire	468	12	25.6	5	10.7	1	2.1	16	36.3
Fond du Lac	462	20	43.2	4	8.6	1	2.2	14	30.3
Janesville	280	7	25.0	1	3.6	1	3.6	8	28.6
Manitowoc	343	11	32.1	..	....	..	...	13	37.9
Marinette	331	16	48.4	2	6.0	1	3.0	12	36.2
Wausau	433	10	23 1	5	11.5	3	6.9	20	46.2
Waukesha	84	7	83 4	..	....	..	...	6	71.5
West Allis	323	6	18 3	1	3.1	..	...	11	33.5
Total Cities	21,541	703	32.7	129	5.0	52	2.4	770	36.0

Table 7.

	Pop. U. S. reg. states	% total U. S. Pop.	Wisconsin Pop.	Deaths from diseases of pregnancy and confinement				Deaths from puerperal infection			
				Total No.		Rate per 100,000 Pop.		Total No.		Rate per 100,000 Pop.	
				U. S.	Wis.	U. S.	Wis.	U. S.	Wis.	U. S.	Wis.
1908	46,789,913	52.5	2,295,302	7,344	304	15.7	13.2	3,271	112	7.0	4.9
1909	50,870,518	56.1	2,316,822	7,791	256	15.3	11.0	3,427	101	6.7	4.4
1910	53,843,896	58.3	2,333,860	8,455	268	15.7	11.4	3,892	113	7.2	4.8
1911	59,275,977	63.1	2,358,293	9,456	306	16.0	13.0	4,376	150	7.4	6.4
1912	60,427,247	63.2	2,382.771	9,035	252	15.0	10.6	3,905	88	6.5	3.7
1913	63,298,718	65.1	2,407,249	10,010	278	15.8	11.4	4,542	127	7.2	5.2
1914	65,989,295	66.8	2,431,727	10.518	307	15.9	12.7	4,664	118	7.1	4.8
1915	.....	....	2,456.176	.....	320	....	12.9	.....	120	...	5.3

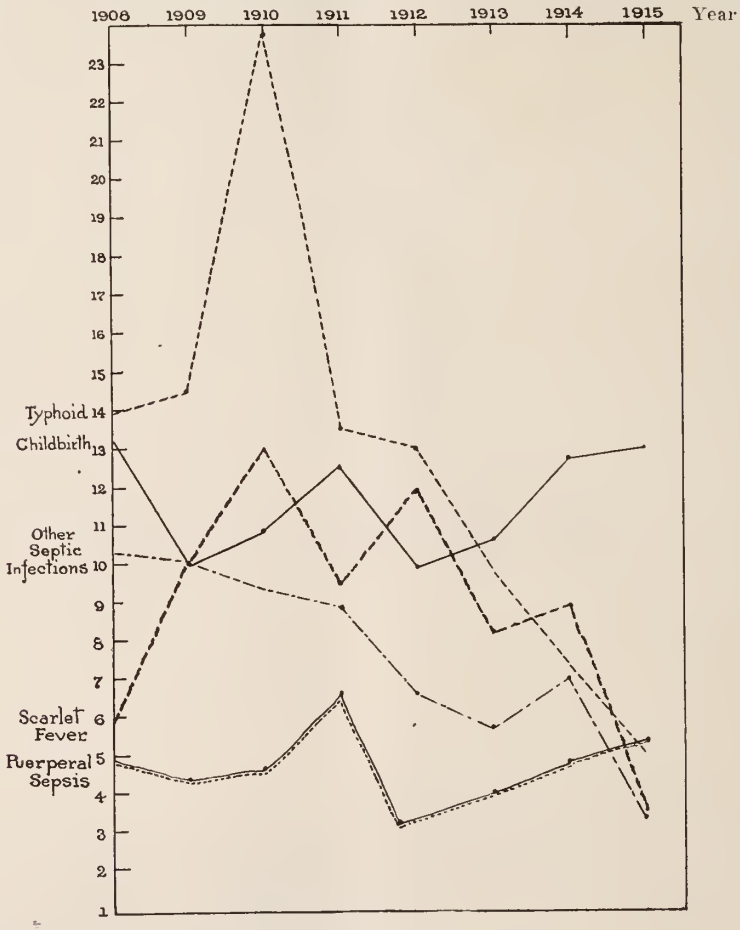
and certain countries of Europe; but that whereas these death rates were decreasing abroad, in the United States they are very slowly but steadily increasing. In 1902 in the United States there were 13.0 deaths from the puerperal state per 100,000 population, and in 1913 this rate had risen to 15.8.

For Great Britain in 1897-1906, there was an average death of one mother to every 228 births, and in 1909 a death of one mother to every 271 births, and in 1914 a death of one mother to every 253 births. In Wisconsin there was an average in 1899 of one maternal death reported for 222 live births; and in 1914, one maternal death to 195 live births. Wisconsin has a higher average maternal death rate than either England or Ireland, though lower than Wales or Scotland; while in Wisconsin the average rate for puerperal sepsis is higher than in any part of Great Britain. Comparing Wisconsin with the United States, we find the Wisconsin rates for both puerperal sepsis and total deaths from childbirth lower than for the total United States; but as registration becomes more complete this discrepancy is disappearing.

It is obviously unfair to calculate puerperal death rates per 100,000 population, as childbearing is possible only for the female portion of the population, and for that portion of the females of childbearing age (approximately between fifteen and fifty). Deaths from the puerperal state and from puerperal sepsis should be compiled in all mortality statistics either for the separate class of women in the reproductive period, or per 1,000 live births. As data for such calculations are not available for past years, other comparisons have to be used.

We are given some idea of the danger involved in childbirth and pregnancy from such comparisons as are drawn by Dr. C. H. Davis of Chicago in his recent book on "Painless Childbirth"; he points out that a woman between fifteen and forty-five

Table 9.
DEATH RATE PER 100,000 WISCONSIN POPULATION
For Childbirth, Typhoid, Scarlet Fever, Puerperal Sepsis and Septic Infections



years old is in more danger of dying of maternity than of either tuberculosis or cancer.

In Wisconsin in 1913, there were about 1,000 deaths from consumption in women between the ages of ten and fifty, and only 338 deaths from cancer in the total population of men and women between these ages. Altogether 278 deaths from the puerperal state were reported in this year. If as many as one in eight of all the women in the state were reproducing in this year (probably far too large a figure), our death rate from maternity for this class would be over twice as large as for consumption in the same year.

Dr. De Lee pointed out in 1911, that it is probably "much safer for men to go into battle than for women to have children", since the mortality of women in childbirth in the United States today, is probably as great as the estimated mortality of the soldiers engaged in the Franco-Prussian War in 1871, namely three-fourths of one per cent.

Again, if we compare the deaths in Wisconsin from other well known infections with deaths from maternity, Table 8, interesting points may be brought out. In the *graphic chart,* Table 9, the control of typhoid fever since the introduction of vaccine is startlingly brought out. The gradual decline of scarlet fever and deaths from erysipelas and other septic infections throughout the state is probably due to public enlightenment and the activity of the State Board of Health. The curve of deaths from childbirth has gradually risen since 1909; and the curve for puerperal septicemia has remained practically the same during these six years. *Puerperal septicemia seems to be the only form of wound infection in Wisconsin, and probably in the United States, the occurrence of which has remained totally unaffected in the past decade by the advancement of scientific knowledge and the general public agitation for the control of infectious diseases.*

In making a study of the natal conditions in Wisconsin, it was necessary to limit our investigation to one year, on account of the magnitude of the work involved. All the certificates of death for Wisconsin for 1915 (26,676) were carefully scrutinized and all the deaths registered as puerperal transcribed; and all the deaths of women between fifteen and fifty dying with an obscure, illegal or misleading diagnosis have been investigated. Also all our findings were checked again with the death certificates to eliminate as many errors or clerical mistakes as possible.

The causes of all maternal deaths were classified for the 71 counties, the total in each county; and the average death rate was calculated from the total number of cases occurring between 1909 and 1915 (seven years) per 100,000 population for each county. The following summary may be of interest:

WISCONSIN, 1915.

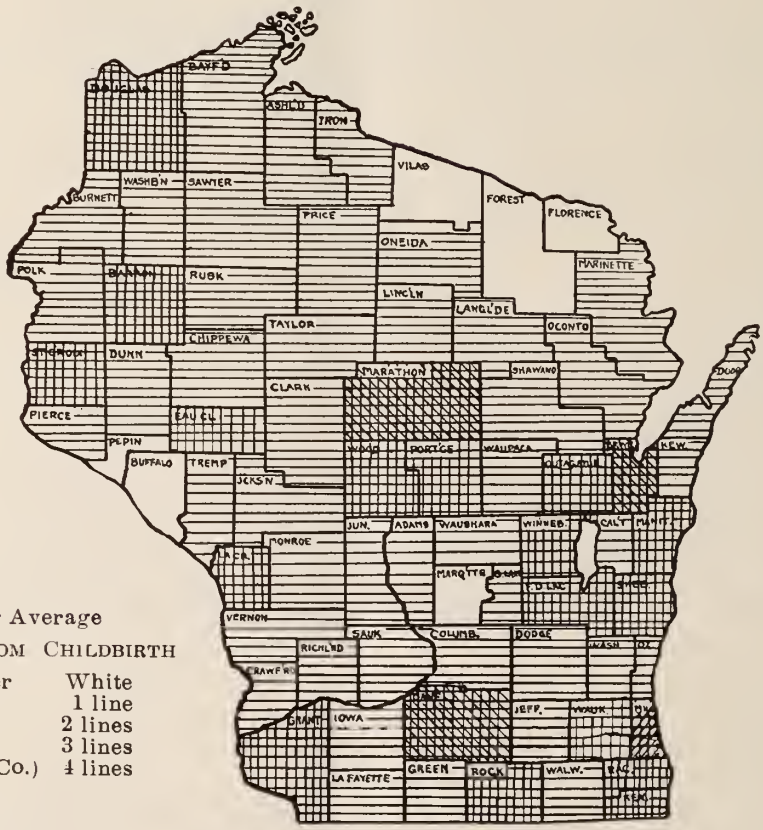
	No.	% of Total	
Deaths from accidents of pregnancy....	20	6.3	
Deaths from puerperal haemorrhage...	43	13.5	
Deaths from other accidents of labor...	19	6.0	
Deaths from puerperal septicemia.....	131	41.2	64
Deaths from puerperal alb. and conv...	73	22.9	
Deaths from phlegm, alba dol. & embolus	22	6.9	
Deaths following childbirth.....	10	3.2	
Total puerperal deaths, all causes.....			318
Death rate for puerperal state per 100,000 population			12.9
Death rate for puerperal sepsis per 100,000 population			5.3
Death rate for puerperal state per 1,000 live births			5.6
Death rate for puerperal sepsis per 1,000 live births			2.3
Average death rate for puerperal state (1909-1915) per 100,000 population.....			14.4

Also the puerperal death rates in the twenty large cities for 1915 per 1,000 live births were calculated (see Table 6). The death rate for each county in 1915 per 1,000 live births in that county was also calculated, but was not used, as calculations for a single year are not of great significance in the small rural counties where few puerperal deaths are reported, and where birth and death registration is also noticeably incomplete.

There were in all about sixty deaths investigated, the diagnoses of which suggested pregnancy. Unless information could be obtained through the local health officer, a letter was sent to the doctor signing the death certificate, asking for information. Negative answers were received in seventeen instances, thirteen letters were not answered, and two letters were returned unclaimed. The health departments of our twenty largest cities were also requested to check the names of those women dying in 1915 between the ages of fifteen and fifty with their birth certificates for 1915, to see if any of these women had born a child during the month before her death. From the answers received from the personal letters and from the co-operation of most of the cities, in six weeks time we were able to add 31 positive cases to the records in the office

of the State Board of Health; and found seven cases of deaths of women during pregnancy from intercurrent diseases, and discarded three cases previously considered as positive. There were also a number of cases reported as probable or doubtful pregnancy, not included in our chart. The investigation then disclosed *38 cases of death among women in 1915 accompanying the puerperal state, not appearing clearly as such on the death certificates.* Had the investigation been a longer one, or had it been statewide, instead of limited to the cties and to those rural physicians we could reach by personal letter, more cases would undoubtedly have been statewide. insted of limited to the cities. And could explicit diagnoses be obtained from the state medical profession, giving the probable cause of death and also the duration of pregnancy or the time after delivery, on the death certificate, the puerperal death count in Wisconsin in 1916 would be at least 350, and the deaths from puerperal sepsis at least 150.

Dr. De Lee states that probably one in every 400 full term deliveries results in the death of the mother from septicemia. As in Wisconsin we have at least 60,000 live births, even if we consider 5,000 of these as premature, we should have according to the calculation of this well known authority, at least 137 deaths a year from puerperal sepsis. If to this were added the infections following miscarriage and still births, which are presumably at least ten per cent. of the number of live births, we can see how the Wisconsin deaths from this form of wound infection must be at least 150 a year. This would give us a death rate from puerperal sepsis of at least 2.7 per 1,000 live births, while the rate calculated on the recorded figures for 1914 (118) is 2.0, and the figures based on our investigations is 2.4 for the twenty large cities for 1915.



7 Year Average
DEATHS FROM CHILDBIRTH

7 or under	White
7 to 28	1 line
28 to 56	2 lines
56+	3 lines
390 (Mil. Co.)	4 lines

Table 10 shows a map of the state with the counties shaded by cross hatching to represent the number of cases occurring in each county in the past seven years. Counties having seven deaths or under in the period of 1908-1915 were left white; counties with 7-28 deaths received one line; counties with 28-56 two lines; counties with over 56 deaths three lines; and Milwaukee County with 390 deaths in this period was double cross hatched. This method of representing the areas in which more deaths from maternity occurred was obviously fairer than to take the average death rates for the

Table 10.

WISCONSIN FIGURES.

	1908	1909	1910	1911	1912	1913	1914	1915
	2,295,302	2,316,822	2,333,860	2,358,293	2,382,771	2,407,249	2,431,727	2,456,176
Total Deaths	28,222	27,380	28,213	27,185	27,000	27,858	27,368	26,676
Death rate per 1,000 population	12.1	11.6	12.0	11.5	11.3	11.5	11.2	11.9
Deaths from Childbirth	304	231	255	296	237	255	307	291
Death rate per 100,000 population	13.2	10.0	10.9	12.5	9.9	10.6	12.7	12.9
Deaths from Typhoid Fever	322	337	558	319	310	237	176	123
Death rate per 100,000 population	14.0	14.5	23.8	13.5	13.0	9.8	7.3	5.0
Deaths from puerperal sepsis	112	101	110	155	77	96	118	131
Death rate per 100,000 population	4.9	4.4	4.7	6.6	3.2	4.0	4.8	5.3
Deaths from Scarlet Fever	133	372	304	225	283	197	215	85
Death rate per 100,000 population	5.8	10.0	13.0	9.5	11.9	8.2	8.9	3.5
Deaths from erysipelas and purulent inf., etc	...	235	219	210	157	138	170	107
Death rate per 100,000 population	...	10.1	9.4	8.9	6.6	5.7	7.0	4.4

counties for this period. Populations in counties vary extremely in female content, and birth registration is too inaccurate to permit rates to be made per 1,000 live births for a single year in rural counties. Comparing this map with the 1915 maternal deaths per 1,000 live births in cities in Table 6, we find Green Bay of Brown County to have the highest death rate (18.4), Wausau of Marathon County the next (11.5), Eau Claire of Eau Claire County the next (10.7), Madison of Dane County the next with 10.4. Brown, Marathon and Dane counties are the three counties on the map showing three hatches. The map is obviously unfair to Milwaukee County, as the rate in Milwaukee City owing to the large population is only 3.9 per 1,000 live births in 1915, and the average rate per 100,000 population for the county for the seven years is less than 10.0. With the exception of Milwaukee County, this map, I believe, gives a fair impression of the parts of the state where childbearing is most dangerous at the present time.

Some interesting information about the rural counties was also elicted by this investigation. In three rural counties which had the highest average maternal death rate, the very high infant mortality and the number of still births led one to suspect that this unusual death rate from puerperal causes was not an accident, but represented serious lack of hygienic care of parturient women, and lack of good obstetrical attendance.

Taylor County has the largest percentage of births delivered by unskilled persons registered in 1915. Physicians are reported to be very few in this county. In 1915, Barron County had 15 deaths from prematurity, Taylor County had 9 deaths from congenital debility, and Wood County 16 deaths from prematurity during the first month of life.

We have been forced to admit from this study that the midwife seems to play a minor part in producing prenatal and natal conditions as we find them today in Wisconsin. In fact, where midwifery prevails the death rate from childbirth is frequently lower than elsewhere. Since a large proportion of puerperal deaths are due to uncleanliness or operative interference or a combination of the two, the reason why the midwife has the best showing lies probably in the fact that a larger number of her cases are delivered spontaneously, without either internal examination or the use of instruments. The midwife is not allowed by law to apply forceps, and she is not called upon to attend cases of acute infection as part of her regular business.

With the introduction of antiseptics and anaes-

COUNTY	Av. death rate from puerp. state per 100,000 1909-1915	% delivered by midwives 1915	% delivered by others than doctors or midwives 1915	Deaths under one day 1915	Deaths under 1 month 1915	Deaths under one year 1915	Still births 1915	Live births 1915
Barron	19.7	5.1	11.2	15	27	58	26	746
Taylor	24.2	11.9	25.2	10	25	39	11	413
Wood	20.4	1.6	5.9	22	36	52	22	860

thetics into obstetrics, the danger from the general practitioner's being in charge of maternity cases has greatly increased. The two things that should make childbirth safer have produced, according to Dr. Davis, exactly the opposite effect, because operative intereference became more possible and more usual. Deaths from puerperal fever are definitely increasing in the United States, and this increase is almost entirely in private practice. In the best hospitals, where only well trained men attend maternity cases, the deaths from sepsis have steadily decreased and have practically disappeared.

"Obstetrical accidents," according to Dr. Davis, "will sometimes happen in the hands of the most skilled; but the large percentage of the bad results are due to ignorance and lack of surgical cleanliness, and most of the ills following childbirth are due to poor obstetrics and are unnecessary."

Our findings may be briefly recapitulated as follows:

1. More children die in Wisconsin from prenatal and natal causes, and during the first days and weeks of life than in the average United States.

2. The rural districts show a larger percentage of deaths from these causes than do the cities, in spite of the fact that registration is less complete in the rural counties.

3. Over 50 per cent. of the Wisconsin infant deaths occur during the first month of life; four-fifths of these are due to prenatal and natal conditions. Over 81 per cent. of the deaths the first month in the cities,, and over 85 per cent. in the rural districts, were due to similar causes, which mean that these children were born too weak, too injured or too diseased to live.

4. The death rate from maternity is gradually increasing in Wisconsin, as it is throughout the United States. The death rate from puerperal sepsis, which accounts for nearly one-half the maternal deaths, is also rising steadily. Sixty-four per cent. of the puerperal deaths in 1915 in Wisconsin were due to sepsis or eclampsia, which are largely avoidable. Maternity can be proved to be a greater danger to our women between fifteen and fifty than either consumption or cancer.

5. Midwifery is not so prevalent in Wisconsin, outside of a few large cities and rural communities, as previously thought. Physicians deliver five-sixths of the Wisconsin babies.

6. There is no proof that midwives are more culpable in regard to puerperal sepsis than the general practitioner. On the contrary, an inverse relation may be made out between the percentage of midwifery in most of our large cities and the puerperal death rate.

7. There seems to be a definite relation between high percentage of still births and high maternal death rate, in the cities of Wisconsin.

8. Puerperal deaths are inaccurately reported throughout the state. Puerperal sepsis seems to be more incorrectly and insufficiently diagnosed than any other form of puerperal disease. Diagnoses often wilfully obscure or misleading are frequently found on death certificates, the inference being that the physician is unwilling to shoulder the blame following his own ignorance or carelessness.

On the whole, the bad prenatal and natal conditions in Wisconsin seem to be dependent on the following points. In Wisconsin the general belief still prevails that pregnancy and labor are normal physiological conditions and require no special care. The importance of properly trained specialists for obstetrics and hospital care for operative cases, has not yet been appreciated. The safety of the child-bearing mother is not considered either during her pregnancy, labor or lying-in period. Too hard work or over work in the last weeks of pregnancy is commonly found, especially in rural districts. There is a general lack of proper obstetrical training of the average medical graduate, and a low standard of obstetrical practice is prevalent in Wisconsin as elsewhere in the United States.

The improvements that this investigation has suggested as urgent if Wisconsin is to lessen the deaths from childbirth and early infancy, may be briefly summarized as follows:

1. The education of the community until every man and woman in it realizes what overwork and lack of care of the prospective mother means to her child and to herself. A widespread dissemination of the fact that puerperal sepsis is wound infection, and nine cases out of ten could have been prevented.

2. The making of obstetrics a specialty, and the removal of the care of maternity cases from the hands of the general practitioner. Childbirth should be in the hands of men who are properly equipped to successfully conduct all forms of labor cases, and who are not exposed in daily practice to

acute infections, which are a menace to the parturient woman. Operative obstetrics is as much a specialty as any branch of surgery, and requires a particular and different training and the abandonment of all other forms of medical work, if it is to be successfully pursued. Wisconsin is far behind the times in the demand for specialists for labor cases. Outside of Milwaukee, I do not know any city in the state where a physician devoting himself entirely to the practice of obstetrics can be found. The medical profession should enlighten the general public as to the need of this reform.

3. The establishment or improvement of well equipped hospitals and nursing units in the rural counties or rural parts of urban counties, so situated as to be of easy access to the greatest number of the county residents. Such hospitals should have a separate pavilion for maternity work, with both free and pay beds, and a separate staff of attendants, trained specially for the work. Only in this way can adequate care of difficult obstetrical cases be furnished the poor or isolated families in the rural portions of the state. Again, education is needed to make the general public realize that a maternity hospital is usually a safer place for childbirth, than the average private home. The visiting nurse who in our cities is our most efficient force in meeting the infant and maternal mortality problems, will undoubtedly prove the most important means available for rural work.

4. Puerperal sepsis should be made a notifiable disease, as it is in Pennsylvania and Oklahoma, and as it has been since 1899 in England. Publicity is the best method to check the increase of mortality due to the inefficiency, ignorance or carelessness of the attendant in childbirth. The co-operation of the medical profession in writing diagnoses of deaths in simple, clear, and explicit English would also furnish the State with more accurate knowledge of the actual mortality connected with pregnancy and early infancy. In every case of death in pregnancy due to intercurrent disease, the condition of the woman should be noted on the certificate, as well as the duration of pregnancy. In case of still births the cause of the premature delivery should be given if possible, and the duration of pregnancy.

5. The care of the childbearing woman should be a state obligation, and is one Wisconsin cannot afford to neglect; for the conservation of the life and health of the mother not only increases the chances for health and life in her offspring, but upholds the integrity and vitality of the race.

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DISCUSSION.

Dr. Hoyt E. Dearholt, Milwaukee: Mr. Chairman, Ladies and Gentlemen. I think that few who have not participated in some such investigation as this will have much of an appreciation of the tremendous amount of work that has gone into the preparation of the remarks

that Dr. Mendenhall has sketched so briefly for us this morning.

I for one hope that further study will be made of the entire paper. There are very interesting tables which I have been privileged to see, which she has been required on account of time limitations to pass over this morning, which I trust will be gone into thoroughly by the Society, or a committee of it.

It is interesting to me to note the authority that Dr. Mendenhall brings to this study. She was closely identified with some of the early research work on Hodgkin's Disease, having in 1900 done work which Drs. Yates and Bunting acknowledge has been very helpful to them. It is interesting to note that this work, taken up long before she came to Wisconsin, should be identified with that by which two of our Wisconsin physicians have been enabled to establish at least the cause of the disease. In our Anti-Tuberculosis Association we have for a year or two been giving some special attention to the infant mortality problem, and have discussed the work with Dr. Mendenhall long before this particular investigation was undertaken. We have conducted statistical studies, and some firsthand investigations in Dunn, Douglas, Grant, Marquette, Marathon, Racine and Walworth counties, and Fond du Lac City. Our findings in general corroborate those of Dr. Mendenhall. In fact I should say that her figures are considerably more conservative than those which we have obtained in these limited number of counties. Some of the above named counties, it is freely admitted, are among the worst in the state, though not all of them.

When the Anti-Tuberculosis movement was projected for Wisconsin, we found that the Wisconsin problem did not fall in line with that of those large cities like Baltimore, New York, Boston and Philadelphia, in which the movement had its origin. We found that we had to study our own individual Wisconsin tuberculosis problem, to enable us to act in a way that would be intelligent for Wisconsin. Just so, it seems to me, we shall find a similar necessity in the study of our infant mortality and obstetrical problem. To illustrate: In the large cities where the baby welfare camps have been started, first attention has been given to the summer problem, because in New York and Chicago and large cities of that sort, with congested slum districts, heat and rotten milk are the things that are killing the baby. Our experience corroborates Dr. Mendenhall's statement that these are not the important things in Wisconsin. Instead of our great number of baby deaths occurring in the hot months, we find that there is a tendency for them to occur in the cold months of the year. And why? Because the great number of births occur in other months than the summer months, and we find, as Dr. Mendenhall has stated, that death follows almost immediately upon birth.

Our findings concerning the rural and urban comparison corroborate those of Dr. Mendenhall. One of the reasons for this was well illustrated in a study that we conducted by request in Marathon County, where we found that people, through poverty and remoteness from physicians, were absolutely unable to secure any medical attendance whatsoever. In more than one instance the death certificate stated that the physician had never seen the baby until after it was dead.

It seems to me that physicians can demand no less for the people for whose health and lives they are responsible than at least as good care as is given to grade cattle. They are not getting it, too frequently.

In Boston and New Zealand, by careful attention to the prenatal care of mothers, by good obstetrical care, by just common everyday cooking variety of knowledge concerning the feeding of babies, they have been able to cut down the death rate at least one-third. It would seem to me that our Wisconsin mothers are entitled to at least that much. This can be furnished, as Dr. Mendenhall has suggested, through the organization of county hospitals, perhaps with visiting nurses going out from there to carry the information by word of mouth which we cannot hope to secure through the publication of booklets and leaflets that too frequently are beyond the ability of ignorant people to read and understand.

Dr. John M. Beffel, Milwaukee: Mr. Chairman and Members of the Society. I have no desire to attempt to add anything at all to the paper which was read by Dr. Mendenhall. I think most of us have been startled by the general statement that the maternal death rate is rather in inverse proportion than in direct proportion to the number of midwives. We have been talking about this thing for a good while, and some of us have sort of excused the high maternal death rate on the basis that it was due to the dirty midwives. We now have adequate proof that the maternal death rate has nothing to do practically with the question of midwifery as practiced by midwives.

I am not quite sure, however, of the conclusion which Dr. Mendenhall drew on the question of better education of the medical profession on this point. I feel this way about it, that if the maternal death rate is no higher among the midwives, and not as high as it is among the physicians, that some other element rather than that of education enters into the question of the maternal death rate. I have not the time now to even analyze this side of it, but I feel that we ought to consider this question. It is not then a question of raising the standard of medical education alone. That will not do it.

After seven years of experience on the State Board of Medical Examiners, I feel that the Board has been doing all that was possible for it to do to compel men to become trained in obstetrical work, compelling the recent graduates to present before the Board certificates showing that they have had six cases in obstetrics under proper medical supervision. This was following the suggestion of Dr. Hirst of Philadelphia. That practice has been followed out.

I am of the opinion that it is something entirely different from the question of medical education. The doctors do know how to care for the average obstetrical case, but the doctor is a creature who has to make his living by the sweat of his brow, as well as any other man, and so he is subject to the influences which naturally surround the making of a living; and altogether too often the question of conscientiousness of the physician enters

into the subject. The physician must be more conscientious in his handling of the patient. He ought not to interfere with a normal delivery of a woman simply because he is short of time, or because he is hurried here and hurried there. If he is not able to devote the proper time to the delivery of a woman, he ought not to accept that case. He certainly ought to be an conscientious as the midwife is. And if it is necessary to wait for one hour, or three hours, or six hours, or eight or ten hours, he ought to be willing to wait that length of time, and see that the woman is properly cared for.

There is certainly something wrong in the handling of maternal cases in some of the counties of this state. I am not going to try to say why it is. I do not see any reason in the world why Green Bay should have as many maternal deaths as it has. There is no excuse for such a situation to obtain as obtains in the city of Green Bay today. You will perhaps say that they have a large number of illegitimate births there. There is no reason why a girl who may be pregnant out of wedlock should be carelessly cared for. That certainly is not an adequate excuse. In the handling of maternal cases at the Martha Washington Home in the city of Milwaukee, where all of the maternal cases handled are of this type, they have not had a single death in twenty-two years among the mothers handled at that institution. So that it is not a question of illegitimacy. That fact has nothing to do with the matter. It is a question of careless medical work, without any question whatever.

There is no reason why Dane County should have almost three times as many maternal deaths in proportion to the number of babies born as the city of Milwaukee has. There is no excuse for such a situation. Nor is there any excuse for any county or any city in the state of Wisconsin having in the neighborhood of 100 maternal deaths for ten thousand births. And yet that is the condition that obtains in more than four of the large cities in the state of Wisconsin, more than 100 maternal deaths for each ten thousand births; and Green Bay has 180 maternal deaths for each ten thousand births. Milwaukee has about 39 for each ten thousand births.

Now then, certain standards have been established of accurate, sound obstetrical work. The average rate per thousand births is in the neighborhood of 5 deaths in this state. If then your county or your city has a death rate which is above that, it is time that you checked up somewhere, as any good business man in the conduct of his business would do, see that the losses over and above a certain amount are checked up, until he finds out where the trouble is, and why the losses are there. It is up to us, as medical men, who have in our hands the conservation of the lives of the women of this state, to see if we are responsible for this high maternal mortality, and why. And I would suggest that the secretary of each County Medical Society in this state familiarize himself with the situation in his own county, and that a meeting be called early in this year, where this subject will be taken up and discussed, and ways and means may be brought about whereby this high maternal mortality rate in a given county may be lowered as it should be. Go at it as business men. And it is due largely to business conditions that this high maternal mortality exists. Go at it as business men, and give the people an honest business administration such as we hear so much about, in your county medical affairs.

When it comes to the reduction of the infant mortality rate, we are up against an enormous problem, and I do not believe that any man here would assume to suggest how we are going to reduce the infant mortality among the babies under 30 days of age, and how this 50 per cent of babies who die in the first year of life can be reduced. It is going to be a difficult problem to in any way suggest ways and means of cutting down this death rate. In spite of all the work that has been done in this country, within the past 6 years, along the lines of conservation of the lives of infants, as Dr. Mendenhall shows, the death rate of infants under 30 days of age is increasing rather than decreasing. And so it behooves us to find out where the trouble is.

The Children's Bureau at Washington has made some study of the problems surrounding infant mortality. The pamphlets published by them show rather conclusively that the infant mortality rate can be reduced. They show that the death rate among infants under one year of age ranges all the way from 30 to 300 deaths per thousand living births. There is no reason in the world why we should not go to work to find out why there is this death rate of 300 for each 1,000 living births. They did go to work in Johnstown, and showed that the death rate there was in direct proportion to the wage earned, so that the wages do count as a determining factor in the causation of infants' deaths under one year of age. They demonstrated that it was a question of the number of people who lived in a given room, or in a house, the amount of fresh air. They showed that it was a question of whether they were illiterate or literate. There was a very direct relation between illiteracy, low wage, and bad surroundings. The medical profession in the state of Wisconsin should familiarize itself with these things, and thus be able to show to the people the true causes of maternal and infant deaths.

But the great big job that we have got to handle is this large number of deaths under 30 days. It must appear to all of us that if practically 50 per cent of the deaths which occur in the state of Wisconsin under one year of age, occur in the first 30 days of life, that those deaths are connected very directly with the problem of the birth of the child, and the conditions which surround the mother previous to the birth of the child, and subsequent to its birth, it is these early days that we ought to observe. These are the times that we should investigate.

The startling statement made by Dr. Mendenhall that 64 per cent of the deaths among the mothers are due to sepsis and to uraemic convulsions probably has much to do with the high infant mortality, and if we properly cared for the mother and prevented this high maternal death rate from purely preventable causes, we would reduce the infant mortality by so doing. It hardly seems possible that in this day and generation of the medical profession, knowing what we know of sepsis, and knowing what we know of obstetrical work, that we should

lose of those mothers who die, 64 per cent of them from these two absolutely preventable causes. It means that we are not even doing as good work as the midwives. It means that we are careless somewhere. We go to the patient from contagious diseases, such as scarlet fever, erysipelas, and all forms of wound infection, and attend upon these obstetrical cases. I do not believe that it is profitable to handle this problem, as was suggested, by substituting the specialist for the common, everyday practitioner. I do not think we can do that in this state. But I do think we should demand of the physician that he should be more careful in his handling of obstetrical work. How are you going to do it? One suggestion that was made by Dr. Mendenhall was that all cases of puerperal sepsis be reportable, as in the cases of communicable diseases. I believe we could accomplish something along this line, but I believe that we would accomplish something infinitely better if we introduced a cash register system, a sort of time-keeping system in the state of Wisconsin, by educating the people of the state of Wisconsin as to what are the proper obstetrical methods. We may then hope to get somewhere. When a father knows that the urine of his wife should be examined every single month, that is, when he is so taught by the State Board of Health or by the County Medical Association, and is taught that any change in the condition of that urine is an indication for some definite action to protect and save the life of the mother, then we are going to get the medical profession to realize the necessity for the analysis of the urine, and we are going to take that urine and do more than simply make a boiling test. Some physicians do not do any more than boil the urine; they do not make a microscopical examination of the urine. Some physicians permit the mothers to go on to delivery without taking the blood pressure to determine whether it is high or low. You have that instrument, and you can utilize it to advantage, and reduce the death from uremic convulsions, if you will just simply apply the sphygmomanometer. If you will teach the father and mother that these things should be done, you will find that they will demand of the physician the use of these instruments of precision in diagnosis. If you will teach the fathers and the mothers what it means to be fathers and mothers, you are going to reduce that death rate right there more than you will at any other period in the life of the child. In the past we have permitted people to believe that the having of babies was a perfectly normal function, and it is not. We permitted people to believe that the coming in of the milk is a question which does not amount to much. It comes along the third or fourth day. I heard a doctor say some time ago that if God intended the baby to have milk the first day, he would have put milk in the breast, so if it does not come until the sixth day, don't feed the baby, let it go. God intended the milk to come on the first day, and it did not come until the sixth day, so the baby died. I feel that the medical education of the people themselves is going to be the great thing which will lower the death rate of the babies under 30 days of age, more than the education of the medical profession. The medical profession is over-educated today in a way. What it needs is to confine itself to facts that it knows today. You doctors here, and all of the doctors in the state of Wisconsin know perfectly well how to deliver a normal case. A great share of them know how to deliver a complicated case. It is just the application of the knowledge they have today that is going to reduce the death rate.

The relation that the State should hold to the parturient woman is a big question that is coming up, and we shall have to discuss it in the next year.

The question of maternal insurance. This will add much. If every mother who becomes pregnant realizes the fact that she can get information from Madison that is going to help her in the bringing forth into the world of a normal healthy child, she is going to apply to Madison for that information. If we could in some way take care of a woman during this period, and give them the money with which to care for themselves and to pay for the services of the physician, we would get somewhere along the road toward better obstetrical work. But when the doctor has to go and spend hours in attending obstetrical cases for $5 or $10, where he spends anywhere from one to ten or twelve hours, we are not going to reduce the infant mortality very much. So you have got to help out somewhere along that line, and I believe that one of the best means of doing this would be to establish maternal insurance. We are talking about industrial insurance, insuring the hired man on the farm against industrial accident, insuring the mate in the home against industrial accident, insuring every solitary creature in the world against some mishap of life, and yet the one creature who ought to be surrounded by all of the safeguards that it is possible for civilized society to surround her with, has not as much safeguard surrounding her at such a time as the ordinary cow in Dane County. And that is not an extravagant statement at all. It is the perfect truth. You have gone into these homes time and time again, and you realize what it means. I have gone into homes where I have seen the woman lying upon a bed with an old dirty mattress, without sheets, with pillows upon which there were no pillow cases, and saw her lie there with a dirty black gown, that was filthy with the discharges of the amniotic fluid. So I say, let us go ahead and educate the people. And if we do educate the common people of the state of Wisconsin in their own rights, as to what they should get from the doctor, I am sure that we will see a marked reduction in the maternal and infant mortality.

Dr. J. J. Seelman, Milwaukee: There is just one question I would like to ask in connection with this survey, and that is, whether any effort was made to determine the status, social and otherwise, of the class of women who, as a rule, are confined by midwives, and the class of women who as a rule are confined by physicians. I believe that midwives as a general thing are called upon more frequently by a class of women who naturally give birth more easily and with less need of interference than the class of women who call upon physicians to deliver them. I remember when I was practicing, that if I was called into a foreign settlement

I did not expect trouble as a rule. Usually the delivery came along naturally, and it was very seldom that necessity arose for the application of forceps or some sort of interference. On the other hand, I have a distinct impression that confinement amongst the women of the better class more frequently required the application of forceps and surgical interference. I may be wrong in that impression, but it is an element that may exist, and if there are any conditions which make the percentage of difficult cases handled by physicians larger than the percentage of those handled by midwives, they must be determined and allowed for before these statistics can be of any value.

Dr. L. R. Head, Madison: I do not believe that the maternal death rate in Wisconsin is due to the carelessness or lack of conscientious work on the part of the physicians. I believe that the physicians of Wisconsin live up to high ideals as a rule, and I also think that it is not due to a lack of knowledge on their part; but I do think that a large part of the maternal death rate among the women of Wisconsin is more liable to be found to be due to lack of skillful nursing. After a doctor has delivered the child, where a friend or a relative of the woman takes care of her, there is where I think you will find the source of a great amount of puerperal infection, and if we can develop a system of community nurses, I believe it will lessen the unnecessary death rate more than anything else that can be done.

Dr. Dorothy Reed Mendenhall, Madison: Mr. Chairman and Members of the Society: I might say that I think there was no attempt made to decide the status of the women confined by the midwives and those confined by the physicians. The only thing we could say on that point, I think, is that the conditions in the rural districts I believe show up worse on the whole than in the cities, both for maternal mortality and infant mortality, and that we have to do, as a rule, with a poorer class of women financially, but a strong class of women physically. I think myself that this theory advanced will not hold to any great extent, although I believe it to be a point that should be investigated, that is, as to the different economic status of midwife cases.

As the time is late I do not think I have anything more to say.

"LIMITATIONS TO TEACHING."

Teaching must not be blamed for not doing what only natural gifts can do.—*Thorndyke, Prin. of Teaching.*

MENTAL DISORDERS AND THE SOCIAL WORKER.

ADDRESS DELIVERED BEFORE SOCIAL WORKERS OF MILWAUKEE. OCT. 24TH, 1916.

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I am grateful for the opportunity of setting forth a subject which lies so close to my heart and I thank your committee. I must ask you to indulge me the necessarily superficial and sketchy way in which I am constrained to put it.

By mental disorders we mean not only technical insanity, but include conditions allied to or bordering on insanity. For insanity is rather more a social or a legal, than a medical term—the law often defining what degree or character of mental disorder shall be regarded as insanity and justify the state in committing patients to institutions to conserve their persons or estates, or relieve them from the punishment for crime, or whatever the issue may be.

And so, doctors in this field—that is, alienists or psychiatrists, do not like the word insanity, regard it more convenient than accurate, largely discard it in their study of psychiatry, and group most abnormal mental states under "Mental Disorders" or the "psychopathies." Psychiatrists thus comprehend in their field, all symptoms, whether met with in the strict insanities or the psycho-neuroses, (i. e., hysteria, neurasthenia and psychasthenia), the obsessed and borderlanders, criminals (especially juvenile crime), alcoholic and drug addicts, the feeble-minded—in short, their interest lies in all forms of human behavior which may predicate abnormal mind.

You see at once how vast is the material. If technical or certified insanity is as 1 to 300 of the population, what shall we say of the relative frequency of all the forms of mental disorder and defect that need the co-operation of the physician and the social worker, for the benefit of the individual and society?

I hardly need set forth the tremendous appeal of this large clientele, the source of the deepest misery and tragedy and so worthy of your understanding and, thru your understanding, of your

sympathy, and, thru your sympathy, of your service.

Now, perhaps no phenomena can be better understood than those which we can experience. As there are no forms of human behavior with which we have not something in common, so it happens that there are no symptoms of mental disorder, however strange, that are not within our experience. That is what we mean by the relativity of insanity.

Take, for instance, *fatigue*. The depression, the gloomy foreboding which often possesses you when you lie awake in the small hours of the night, when the vital forces are at low tide, or when you rise in the morning as Carlyle said, "covered with the ooze and slime of melancholy," is exactly akin to the form of insanity known as melancholia, and has the same physical basis in the tissues—only, in your case, it is temporary, and were it not that this morbid state is soon dispelled by the rising tide of nervous energy, you would find it intolerable, and you or your friends would call in the alienist.

From the toxines of extreme fatigue and others, any of us could develop a delirium, a morbid scrupulousness, a sense of injury to the degree of delusions of persecution, and other phenomena which are often found among those exposed to great hardship, such as the members of starving camps in exploration parties, etc., and which are analogous to the so-called toxic-exhaustive insanity.

Take again, the normal function of *sleep*. It is a gradual passing into a dementia, a *de*minding process, similar to that of some forms of insanity. Suppose that you were to remain permanently fixed in one of these stages of sleep, as some insane practically are, the early stage, for instance, where there are sense falsifications, confusion, phantasy, etc., you certainly would need a conservator, as the demented patient does, to look after your affairs. Dreams too, can be easily likened to insanity; insanity sometimes well suggests a sort of *waking* dream.

Perhaps one of the most interesting ways in which it is possible to experience insanity—though I would not recommend you to large experimentation in this direction—is the common alcoholic intoxication. Here there is a striking analogy to the mental disease, *paresis*—commonly and erroneously called softening of the brain. The early effect of a few drinks is to dispel the usual reserve and reticence, reduce judgment and caution, promote well-being and boastfulness and generally expansive states of the ego—a euphoria in which every goose is a swan—which exactly correspond to the early stage of paresis. A few more drinks produce greater changes in conduct, all in the direction of loss of restraint and finally to weakness of mind and muscle, ending in mental and physical paralysis. This again corresponds to the later stages of paresis.[1]

The very names of the symptoms of mental disorders are many of them found in the popular dictionaries and are common experiences of the well. Let us examine just a few.

Depression and elation. These are normal qualities and when extreme and pathological they give rise to conduct which constitutes the form of insanity known as melancholia and mania, respectively. They are tones of feeling which, even in the well often, largely, arise from causes *within* the individual, although he is prone to erroneously read the cause into the surroundings *without*, by a sort of human necessity we are under of explaining our feelings whether such explanation be true or false. For man is not a reasoning animal (noëtic) so much as a feeling animal (affective) but under the necessity of rationalizing his feelings, finding reasons for them *a posteriori*. For example, when Browning wrote "God's in his heaven, all's right with the world," he was rationalizing a healthy euphoric mood, and we all attempt to explain our feelings in terms of reason to ourselves, to our community, to our wives, even no matter how wide of the mark.

Such explanation in the insane often constitutes the delusion itself, and its magnitude is often in proportion to the intensity of the elation or depression. It is, so to speak, as if the centers or structures—if we could put it that way—for joy or sorrow were themselves affected and the victim was under the necessity of explaining such joy or sorrow by outward circumstances which he has to fabricate and which constitutes the delusion. A case in point is that of a maniacal patient so elated that nothing short of the belief that he was Christ was adequate explanation to himself of his stupendous expansion. Sometimes there is a hovering on the brink of the delusion and thus one day, with a moment's flash of insight, he was cap-

[1]Sometimes both paresis and intoxication behave differently from what is set forth above.

able of doubting the preposterous claim. Raising himself on his elbow, looking straight into my eyes he said, with the most impressive tone and manner, "Doctor, I'm either Jesus Christ or I'm crazy."

Negativism, and distractability. In the former state, the person is apathetic, unresponsive, sometimes fixed in attitude, and as inaccessible to impression and devoid of expression as a post. In the opposite condition, distractability or divertibility, every little stimulus to the senses is more than noticed, the attention is over active, the patient over-responsive, impressions at once flow into expressions under great mental animation, as you have seen a young dog standing with attention keyed to the highest pitch, taking in the landscape with eyes, ears, and tail alert and reacting to every fleeting impression, from without. We often use similar terms in describing our friends in whom we see the same states in lesser degrees. When the florid Henry Watterson attacked Mr. Cleveland, calling him "a wooden image of dull stolidity, as incapable of receiving impressions as of returning warmth," he unwittingly used the terms of negativism.

Fears (Phobias)—These are, *par excellence,* the things that go wrong in mental disorders, and yet they are not so different from their operation in health. There is nothing so unreasonable, so irrational as our fears, and yet they possess us and move us tremendously, flouting the very face of our reason. They are instinctive, useful once, perhaps in primitive times, covered up now by our later and healthier nerve tissue and function, so to speak, only to "stick out" and agonize us when the healthy nerve tissue or function gets attenuated, as it were, and uncovers them. The fear of open places (agoraphobia), the fear of closed places—of being "shut in" (claustrophobia), the fear of crowds, the fear of touching things (mysophobia)—we can string out the names in endless varieties—57 I dare say—are all common fears which only need to "get loose," to operate in excess, to make us the proper subject for the clinic.

Take the question of obsessions, imperative thinking, moods (the analogue of double personalities), when we are taken away from ourselves, abdicating our old personality for the time being, they dominate many of us so that we are literally "possessed" by them. They only need a certain exaggeration plus a certain unsparing and unfavorable environment to classify us among the mentally disordered—the psychopaths. We are lucky if our poignant experiences, which have been repressed in the sub-conscious mind by a wise provision of nature because intolerable to consciousness, remain quiescent, and assimilated, and so-called "sublimated," do not break out in psychic symptoms.

RELATIVITY OF MENTAL DISORDERS.

And so we might multiply our experiences to show our kinship to the psychopathies, that even the insane are much like other people and that it is often a trifling circumstance as to which side of the hospital wall we are on. The more favorable and clement the environment, the more likely does the patient remain uncertified or even unclassified.[3]

And thus I would bring home to you the relativity of insanity; that these people are not a different class of beings, unrelated and so unlike ourselves, as if they were a distinct biological type, as we often contemplate them. But we, ourselves, in our own individual or race development, have only gone through, or been promoted out of the "lower grades" in which they still find themselves, or to which they have reverted. And we have only passed through very imperfectly, and cannot be so sure of our standing, always, in a mental life which is ever an art—not a science, where we are ever attempting adjustment to ever changing conditions, ever groping for truth to intelligence and common sense to conduct. That does not mean that everybody is more or less insane. I think the old mother of one of my patients had the right conception of it, when in answer to the question whether there was any insanity in her family, she replied naively, "Well, not to any excess, doctor."

AS TO SOME MISUNDERSTANDING.

A crude idea of insanity is that you have to rant and smash things. That is not very indulgent to our suffragettes. Likewise is the classic idea, say, of Hogarth's pictures and that made popular by fiction and the stage, false or at least mislead-

[3]Man having a harsher and less protective *milieu*, his mental state is more easily exposed or detected than women who can "get away," so to speak, with much more defect than he. Females of a mental age of six can thus survive socially quite as well as males of a mental age of ten—a sort of social chivalry, if you will.

ing, for the violent and disturbed or even the obvious cases are in the minority. When I spent a night in the "violent" ward of the insane hospital I found but two or three disturbed patients in a male population of over three hundred.

We also commonly think of the mind as the intellect and insanity as a disturbance of the intellect, forgetting that the feelings which are the main part of our mental life are disturbed more commonly and primarily. Some of the severest forms leave the intellect quite unaffected. So don't think that by conversation you can always reveal the insanity. That is a common method in our courts and often helps to conceal it. Don't think because a man reasons all right and talks coherently and rationally, that there is nothing the matter with his mind. (We have even a "mania raisonanté.) Indeed these are among the most dangerous insane.

Insanity is a disorder of conduct, which, as we have seen, is based more upon the feelings than the reason. Furthermore, if there is a wrong belief, unfounded, the patient is not necessarily going to talk about it, and yet it may influence his life and acts tremendously, just as you might have a real and well-founded trouble which you don't wear upon your sleeve or talk about, that may abidingly influence your conduct in ways that your friends may be quite at a loss to understand.[2] That your trouble is *real* and his *unreal* does not change the reaction to it. I saw a woman yesterday, who believed she had been accused of killing her mother, and her reaction to this belief, her conduct as the result of it, was just the same as if the fact was true. When patients do not tell the cause of their disturbance, or do not know it, because it lies in the sub-conscious mind, we have to discover it by psycho-analysis, of which we read so much in the magazines. We cannot stop to go into that here, but I might mention the example of Dr. Hoch's analysis of a woman who was insane and constantly going through some mannerisms which she could not or would not explain. These mannerisms were acts of contracting the abdominal muscles, that resembled the "bearing-down" of women in labor. By a psycho-analysis Dr. Hoch was able to determine in short, that the woman, though married, was in love with a dentist. She was living thus unhappily with her husband when a child was born to them, and while in labor she was told by a physician to "bear down" to facilitate the expulsion of the baby, but believing that she would be more attractive to the dentist if she had no children, she secretly refused to obey, in the hope that the child would be still-born. The action of bearing down *now,* a long time after, in her insane condition, under Dr. Hoch's analysis revealed an unconscious mental mechanism which was to make amends for her failure to do so at the time of her labor, and constituted a so-called mechanism of *atonement.*

Mental disorders, sadly enough, are desperately misunderstood or covered up, or unrecognized, sometimes until the debut of some crises or crime. They are the key to many desperate and impossible settings of life. Hamlet might have put them in his list of calamities alongside of "the laws delays" or "the pangs of despised love"—though some hold that this *is* insanity.

The symptoms of unrecognized or often incipient—long incipient mental disorders are construed sometimes in terms of obstinacy or laziness, or "cussedness" (when too irritating) or foolishness or wickedness or "nothing but imagination," which should give way to reasonableness, or be severely reprehended. And this is not true among the ignorant only. By reason of this ignorance, or selfishness, the condition of the patient becomes deplorable in the extreme, and sometimes precipitates suicide or crime. They have not only their

[2] I cite an example, an extreme case of this:

An acquaintance of an unsuspected patient, afflicted with obsessions, chanced to see the patient one night, sitting near her at a performance, and as the hour was very late and they lived in the same neighborhood and were both alone, she reached over to the patient and asked her if they might go home together. She did not know that before getting home the patient, in obedience to her obsessions, had to re-enter the building twice after leaving it, had to make detours on the way home "walking out" diagrams; was unable to cross certain streets without long hesitation and detour; that she could not allow her clothes or gloves to come in contact with the clothes of the acquaintance (or any one living on her side of the street) without staying up and washing them herself in the late of the night, and possibly had to perform various other propitiatory "didos" which, left undone, she could get no peace of mind or sleep, though she treated them as an insult to her intelligence yet utterly powerless against them. No wonder, then, that she would not go home with the acqnaintance and expose the situation. But taken unawares she had no excuse or explanation at hand and so answered, bluntly, "I am not going home," leaving the acquaintance deeply snubbed as well as mystified.

illness to bear, but the contumely of those about them, and reach out vainly for the helping-hand of understanding. Thus, I recall a husband of a patient of mine, who did not, or perhaps could not, understand that his wife's depression, apathy, inability to work, lack of interest, and *tedium-vitae* was a mental disorder. When he did his best to reason it out of her, he became intolerant of her conduct, and, really more irrational than she, believed that from having been an industrious and thrifty help-mate she had suddenly become indolent and selfish by some mysterious and blameworthy change in character and he took an attitude unsympathetic, disciplinary, and intolerant, which would, I am sure, had she not known that I understood her, driven her into the lake with her child. It was impossible to make the husband desist in this despicable attitude, and not until a year or so later, when he himself suffered the same disorder did it come home to him how his wife had felt.

I hope you will not let this sinister interpretation get hold of you. It's very pervasive and I have seen it in doctors who, while discipline has its uses, commit outrages in its name. We are all prone to be more responsive to visible wounds of the flesh than the invisible ones of the spirit and take little stock in what we cannot see or understand; as of old we want to lay our hands in the scars before we believe. So I could not if I would exaggerate the need of understanding, to the social worker. It is the one need and it is very ill-supplied. Indeed the cure lies sometimes in the mere fact of understanding. The alienist is constantly gratified by the relief which comes to the patient merely through feeling himself understood. And of course in the more technical sense, understanding lies in the many psycho-analytic cures by which repressions lying in the subconscious like foreign bodies are brought to consciousness and vanish by a so-called mental catharsis.

The social worker must counteract the popular and unwarranted fear of the insane, which is sometimes a great bugbear until they have had some disillusioning contact with them; they must avoid the popular idea that they must be indulged—not "crossed." Great patience is necessary and sometimes I think a temperamental fitness, of which patience is a large ingredient. We must be prepared, for instance after getting rid of a wrong idea, to find, often, that the patient straightway fastens onto something else,[4] so long as his disordered feeling needs explanation or rationalization. Patients should be treated with candor and not lied to or deceived, except under extreme necessity. We must extend to them respect and consideration, in fact, treat them very much as you would well people. Above all, they need from you the social contact which, after all, "does the trick," the common helpfulness and common sense, which, by experience, becomes expert sense. Among the ignorant you must meet and counteract the interpretation that arises from suspicion and particularly from superstition, which is well known to the social worker in other fields but in the field of mental disorder has a wonderful display.

WHERE SHALL WE FIND THIS FIELD.

Our courts are great clearing-houses; there the malady is brought into the open—our criminal, police court, courts covering domestic relations, and even the civil courts. We constantly see and read of cases that come into the open here, where investigation would reveal a psychosis—a mental disorder, but it is just the investigation which cannot be made, in the speedy jurisdiction of some of the courts, which has sometimes been called the "man a minute justice"—which separates the sheep from the goats—exceeding the speed limit. I am always impressed, on my visits to the House of Correction, where the goats are sentenced—the goats of our economic system—that it does not house criminals, but only defectives and unfortunates. If a man with money or friends, gets drunk, and is in danger of disorderly conduct, his friends save him from the consequences, but if a friendless, and moneyless and "down and out" does the same thing, he finds himself arrested and stigmatized a criminal, sent to the county prison, and gets a criminal record.

Criminality is allied to insanity, and has even been defined sometimes as that form of insanity

[4] A patient, as the result of her depression and sense of unworthiness, had the delusion that her husband was not the father of her child. Her husband took great pains to convince here of the error of her belief, going to a lot of trouble to do so, and finally succeeded, much to his satisfaction, but it was only a very short time before she had switched to another, to fit her feelings, which I had foreseen that she had ready in the background, namely, that by neglect, she had caused the death of another of her children, who had died some years ago.

which expresses itself in anti-social conduct. Dr. Johnson's old aphorism, "the sick man is a rascal," we have now reversed largely, and put it "the rascal is a sick man." The prison of the future, recognizing the morbid mental state of criminals, will, without sentimentality, limit its function to the protecton of society and the rehabilitation of the criminal and not his punishment—certainly not the arbitrary undiscriminating punishment that "fits the crime" rather than the individual; that lies in depriving men of sun and air; that subjects them to solitude and silence and stifles all self respect and in fact leaves little undone to promote anti-social expression. But changes are fast coming, fostered by such work as Warden Osborne's at Sing Sing, which has been one of the spots on earth which well exemplified "man's inhumanity to man."[5]

Another field for our work is the field *par excellence,* the psychopathic hospital or psychopathic clinic. Have we such a place?

The upper floor of the Johnson Emergency Hospital has for some years been established for the detention hospital for the supposed insane—the psychopathic ward. Admitting all persons whose conduct gives rise to the suspicion of mental disorder—whether alcoholic or not—brought in by their friends, or by the police (these cases formerly were held at the station-house or jail, manifestly a highly improper place for the sick). Among these is a large field for the social worker, and we could keep several busy, especially as the work tends to develop out-patient features.

We have here plain cases of insanity, pending commitment; cases for observation, sent from the courts, whose conduct or crime suggested mental disorder; attempted suicides—with mental disorder suspected; people found aimlessly wandering about, presumably abnormal; defective vagrants; occasionally persons from the more favored population, taken by confusion of mind, or temporarily deranged — visitors, possibly, from without the city; escapes from other insane institutions; patients on parole from other hospitals; alcoholics and drug addicts; hystericals upset by domestic troubles, by shocks, or on being caught in crime. These latter are prone to develop what are called "conservative mental mechanisms." Thus, a shop lifter may become hysterical on arrest and develop a delirium in which she finds relief by delusions that someone *else* has committed some crime that has shocked the community, thus permitting a so-called "flight" into a psychosis which conserves her mind by mercifully confusing or covering the real situation by false beliefs. Or possibly rendering her unconscious and thus, by the same conservative mechanism of the mind blotting out the real awareness, for the time being, abdicating, committing mental suicide, so to speak. This is similar to that common phenomenae regarded as the traditional privilege of women to faint, and to thus escape the intolerable.

Out of these patients in this detention ward are sifted those who require commitment to insane hospitals, from those who by reason of rest, treatment, etc., get better quickly, and those whose friends remove them, or those returned to other states or institutions where they came from. About twenty-six cases were committed to the insane hospital last month from the detention ward out of an admission for the month of one hundred and twenty-five cases.

You can see what a large contact is required between these people and those responsible for them, and the large field for the social worker here. We cannot call this detention ward as yet an ideal psychopathic hospital—We have no laboratories, and we have but little room and cannot hold patients long enough for the necessary early treatment, but it is gratifying what we *can* do, and I venture to say there is not a more useful institution in the city, though still undeveloped. A clinic is held every Saturday morning, for the instruction of medical students of the Marquette University School of Medicine, to which the social workers in small groups are welcome.

A very large touch with this field will come when we have some kind of an out-patient department of our insane hospital downtown (for Wauwatosa is too far away for patients to go for advice). Every insane hospital should reach out and take some responsibility, not only for those within their walls, but for the mental health of the extramural population in their district—the district drainage, as it has been called.

As such a psychopathic clinic or dispensary, whether it would be in connection with the psychopathetic ward of the Emergency Hospital,

[5]I would recommend here the reading of Galsworthy's "Justice."

where it would closely correlate with the activities already in operation, or elsewhere (Marquette University contemplates a psychopathic clinic, and the Milwaukee Hospital for the Insane is projecting a psychopathic hospital) patients—all kinds of mental cases—could come for dispensary service, advise, and counsel, coming directly from the ranks of the people, or referred from other hospitals, or those who apply for advice at the insane hospital, could be referred to this downtown extension. Also "parole" patients who are at present discharged on parole, or a sort of probation, from the insane hospital at Wauwatosa, at present numbering something over 200, and absolutely without contact with the hospital, could make their reports to, or receive visits from the social workers from this center, and here, above all, the helpful *aftercare* could be extended to those discharged, to prevent relapses—for subsequent attacks are large.

You can see what an amount of activity awaits the social worker, both trained and voluntary, which has incalculable good in its wake and justifies the expenditure of money manyfold.

So we must get together to integrate the several nascent activities that are gathering for some real work. The success of the tubercular propaganda shows what can be done. I have often been jealous of it and wished some of it could fall into our paths. Much help can come from former patients. I know they are largely ready to contribute time and money. Of course, we cannot soon expect the high achievement of the Boston Psychopathic Hospital with Dr. Southard, or the Baltimore Psychopathic Hospital with Dr. Meyer, or the New York Psychiatric Institute with Dr. Hoch, and in conjunction with the state Charities Aid Association. Each locality will have the problem to solve in a somewhat different way, but we have a good beginning, and we must go on, and we will!

THE CLOSED HOSPITAL.

The medical profession has always enjoyed the unenviable distinction of presenting a divided front, thereby demonstrating the disintegrating force of individualism. Doctors are truly a trying lot when it comes to fusing their activities, and about the best that can be said in defense of their seeming lack of community of interest is that they are usually found most wanting in supporting those movements which are concerned with their own uplift. Of late, however, there has been a change of tendency. The rather active process of socialization of medicine which characterized so much of the legislation of England and Germany before the war, and which threatened to become a predominant note in American legislatures, is tending to bring the doctors into focus. They have begun to look after their own so-called interests in a fashion not totally different from the manner in which groups of other workers have always guarded their privileges. Such a tendency is, of course, salutary.

There is the hidden danger, however, that, in clamoring for its own, the so-called organized profession may set itself to tilting at windmills. This seems to be about what has happened in regard to the closed hospital idea, which has been vigorously attacked by various medical societies in different sections of the United States.

The term "closed hospital" refers to a hospital in which all the work of medical organization and activity is performed by a limited number of men, selected to fill their respective positions by virtue of their special fitness. A group system of this sort is, in every sense of the word, typical of the very best scheme of organization in every other field of corporate or industrial activity. It postulates no inherent superiority in mental equipment or medical capacity of the special group of men who comprise the closed hospital staff, other than that their special qualifications have been investigated and found to be satisfactory. The methods of this group of men may be at variance with those of individual non-staff physicians, but not necessarily better. The important point is that these men enjoy the rare privilege of being able to standardize their methods so as to render unqualifiedly better service to patients, and to young physicians and nurses in training, than could possibly be rendered by an equally competent but heterogenous and ever-changing set of physicians.

If one admits the inherent superiority of this type of united effort—and no one has yet effectually denied it—how is it possible for any protest? The answer is not far to seek, and rests on the fact physicians are, in a measure, losing sight of the truth that, from time out of mind, their calling has been held holy by virtue of the fact that it typifies service. Material as is this day and age, there is something not totally pleasing in a protest which ignores this ethical ideal. A hospital primarily represents the community's interest in the sick; the profession should look to it very sharply before entering a plea of interference with their material interests. They must not be unmindful of the fact that in those centers of medical activity where hospital organization has evolved slowly to its highest efficiency, it is the closed hospital that stands as the representative and dominant idea of hospital service.

Nor, on the other hand, should the closed hospital staff be unmindful of its trust. Abuse of trust and privilege on the part of staff members is, unfortunately, too common; more than that, it is probably responsible for much of the hue and cry that is being raised against the closed hospital. But granting this, we must not lose sight of the fact that the way to apply the proper corrective lies in pointing out a failure to render service, rather than in emphasizing the material loss sustained by worthy colleagues.

BLOOD GROUP DETERMINATIONS AS A PRELIMINARY STEP TO BLOOD TRANSFUSION.*

BY LOUIS M. WARFIELD, A. B., M. D.,

MILWAUKEE.

Transfusion of blood from one person to another has become an important therapeutic measure. However it is not safe to pick out any healthy looking, full blooded individual as a donor, for the donor's blood may be quite harmful and even fatal to the recipient. The early attempts at transfusing blood reveal most discordant results which were not easily explainable, but which now in the light of our modern careful tests show why the older results were so conflicting.

Up to 1910 we did our transfusions blindly, sometimes with brilliant therapeutic success, again with fatal results. In that year appeared an article by Moss[1] in which the whole subject was cleared. He found that all persons could be divided into four groups according to the agglutinating reactions of the serums upon the corpuscles. It made no difference whether the blood was taken from a person when sick or when well. The reaction was specific for the individual.

Group I. Serum does not agglutinate any corpuscles.
  Corpuscles agglutinated by serums of groups 2, 3 and 4. (10 per cent.)

Group II. Serum agglutinates corpuscles of groups 1 and 3.
  Corpuscles agglutinated by serums of groups 3 and 4. (40 per cent.)

Group III. Serum agglutinates corpuscles of groups 1 and 2.
  Corpuscles agglutinated by serums of 2 and 4. (7 per cent.)

Group IV. Serum agglutinates corpuscles of groups 1, 2 and 3.
  Corpuscles not agglutinated by any serums. (43 per cent.)

This work was so accurately performed that no changes have been made by any investigator. Moss used the macroscopic method which requires quite a little material. Brem[2] has modified the technique so that only a very small amount of serum and corpuscles is necessary and the agglutination is observed under the miscroscope. This technique is as follows: Several drops of blood are collected in a clean dry test tube and one drop is mixed with 2-3 c.c. of a solution of .9% saline in 1½% sodium citrate. This gives serum and corpuscle suspension. Clean coverglasses and clean slides, with a well such as are used in making hanging drop specimens, are prepared. One loopful of corpuscle suspension is mixed with two loopfuls of serum on the coverglass. This is inverted over the well in the slide and examined under the dry powers of a microscope. Slight agitation of the slide hastens the reaction of agglutination by bringing the corpuscles together. Agglutination occurs at room temperature within five minutes. Certainly within fifteen minutes. Rouleaux formation must be carefully distinguished from true agglutination. It is pertinent to ask what is the relationship between agglutination and hemolysis? It was found by Moss that hemolysis was always preceded by agglutination and conversely where there was no previous agglutination there was no hemolysis. The ease with which agglutination can be determined makes it a valuable and ready means of selecting bloods which do not hemolyze each other. All blood serums contain an antihemolysin. In the practical application of the test the corpuscles are so diluted that interference of anti-hemolysin is not present. The dilution of the serum with the corpuscular suspension renders the anti-hemolysin in the serum inactive.

Practically one must make a number of tests, say ten or twenty, in order to determine to what groups certain individuals belong. When these cross agglutination tests have been made, that is, the reaction of every one of the ten or twenty serums on all the corpuscles (Chart 1) the groups can then be classified. A set of ten serums and ten corpuscle suspensions means one hundred separate tests. Once this preliminary testing is done, it is a simple matter to classify any unknown corpuscles. In our set of ten persons we found six belonging to group IV, two to group II, and one each to groups I and III. It will be noted that groups II and III are reciprocal, and each serum agglutinates the corpuscles of group I and neither agglutinates corpuscles of group IV.

Therefore having known serums II and III and unknown corpuscles the following possibilities may result:

*Read at the 70th Annual Meeting of the Wisconsin State Medical Society, Oct. 4-6, 1916.

X Corpuscles.

Known serums II and III.

1 X Corp.+2 serum II=agglutination }
1 X Corp.+2 serum III=agglutination } Group I.
1 X Corp.+2 serum II=no agglutination }
1 X Corp.+2 serum III=agglutination } Group II.
1 X Corp.+2 serum II=agglutination }
1 X Corp.+2 serum III=no agglutination } Group III.
1 X Corp.+2 serum II=no agglutination }
1 X Corp.+2 serum III=no agglutination } Group IV.

Then practically all that is necessary is a drop or two of a donor's and a drop or two of a recepient's blood in the sodium citrate—saline solution and the known sera. By testing out a number of well-persons who would be willing to give blood and having their blood groups on record, only the patient's blood need be tested.

So far as we know this grouping is a specific biological characteristic of the blood. It is not inherited but never changes in any individual. And, as Moss has shown, illness does not change the grouping or interfere in any way with the reaction.

In the first 100 bloods examined at the laboratory of the Milwaukee County Hospital there were 6 per cent. of Group I, 39 per cent. of Group II, 10 per cent. of Group III, 45 per cent. of Group IV. These figures agree with those of every worker and show that nearly 90 per cent of persons belong to groups II and IV. Now the corpuscles of group IV are not agglutinated by any serums. The danger in transfusion is that the corpuscles of the donor will be hemolyzed by the serum (plasma) of the recipient, free hemoglobin is liberated and serious toxic effects may result. Such symptoms as chill, sweat, collapse, pallor, rapid pulse, rapid and labored respiration followed by recovery or death are seen when the incompatible blood is given. When recovery takes place there is hemoglobinuria.

Should the patient's corpuscles be hemolyzed by the donor's serum the danger is not so great because the extreme dilution of the donor's corpuscles in the patient's blood and the invariable presence of antihemolysin in the blood so weakens the hemolysins of the donor that they are not active enough to do serious harm. From this it follows that any blood can be given to a patient belonging to group I; about 83 per cent. to those of group II; about 50 per cent. to those of group III. For group IV only the blood of its own group is available, that is about 43 per cent. of people.

Or to put it in another form, the blood of group IV, the corpuscles of which are not agglutinated by any serum, is the only safe blood to give to a patient without testing the patient's group reaction.

In our laboratory we always have fresh known serums and corpuscles. There is a group II (myself), and a group III (an orderly) always available. Every week or oftener we take the serums which are used for the Wassermann reaction and test these out against known corpuscles. We thus have on hand always a few known groups which have been shown to be Wassermann negative. Our object is by having the names and addresses of these people on our hospital records we always know where we can obtain one or more donors in case of urgent need for them.

Just a word as to the methods of transfusion. The surgeons have invented a number of appliances to transfer blood from one person to another. All have been more or less successful. The chief objection to all the methods of direct transfusion is that the amount of blood taken from the donor is not known. To obviate this other indirect methods have been devised. Some use successfully the two way syringe method. Some use the parafinned tubes. Some use citrated blood. Some use defibrinated blood. The strictly surgical procedures necessitate the severing of an artery and a vein, or a vein, through an incision in the skin. When one gives to a single patient twenty or more transfusions, as have been done, such surgical procedures are absolutely prohibitive. We are almost forced to use the indirect methods which require only puncture of a vein by a needle. Of these methods the one which defibrinates the blood is probably the most satisfactory. The use of sodium citrate is not without a certain element of danger. A 1 per cent. solution is quite toxic. A .5 per cent solution occasionally produces chills, fever, collapse and hemoglobinuria. Although some have given .2 per cent. solutions, and affirm that this is sufficient to prevent clotting, our experience is that this is not strong enough to prevent clotting in the donor's blood. We have given .3-.4 per cent. without harmful result. The method is simple. Enough sodium citrate is put in a flask to make the necessary dilution with a certain amount of blood, 300 to 500 c.c. The flask is stoppered with a cork in which are two

holes through which are put two pieces of glass tubing bent at right angles. To one glass tube is attached a rubber tube and needle of large bore. To the other is attached rubber tubing and a glass mouthpiece. The arm of the donor is constricted just so the pulse is felt at the wrist. A vein at the bend of the elbow is punctured and an assistant sucks at the other tube in order to make a slight vacuum. The flask is gently agitated while the blood is flowing in, in order to mix it well with the citrate solution. It is then poured into a regular saline transfusion vessel and given to the patient in the vein at the bend in the elbow. The skin is always infiltrated with a little cocain solution before puncture.

To defibrinate the blood a number of glass beads and broken pieces of glass rod are placed in a flask before puncturing the donor's vein. As the blood flows in, the flask is constantly given a rotary motion and the clot is completely caught by the beads and chips of glass rod. It is then strained through several thicknesses of sterile gauze. The defibrinated blood can now be given to the recipient in the ordinary saline transfusion apparatus.

Transfusion of blood is now established on a basis which admits of absolute accuracy in administration. It has been used in cases of profound hemorrhage resulting from accident or from spontaneous rupture of vessels such as occurs in extra-uterine pregnancy. It has been used in all the group of so-called hemorrhagic diseases and it has been used in the anemias, particularly pernicious anemia. At the present time it is not possible to say what the ultimate results will be in cases of pernicious anemia. Reports of cases treated by transfusion of blood are not many and not enough time has elapsed in any case to evaluate the method. It is promising and holds out some measure of hope although its effects are but temporary.

SUMMARY.

The practical application of blood group tests is a simple procedure. It reduces the danger to the patient to a minimum. By determining the groups of the serums which are Wassermann negative, there are available one or more donors for a patient of any group. Should transfusion become necessary it is easy to determine the patient's blood group and call a donor of the corresponding group. The abstraction of 300-500 c.c. of blood from an individual has no appreciable effect on the person. A donor may be used several times without harm of any kind resulting to him.

The use of the vacuum flask and the citrated or defibrinated blood means only a vein puncture which is made painless by infiltration of the skin with cocain.

The transference of the donor's blood to the recipient is a simple matter. The donor's blood may be transported many miles to the recipient. This in itself is of distinct value.

REFERENCES.

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2. Brem, W. V., Jour. Amer. Med. Assoc., 1916, LXVII, 190.

NOTE.—A possible criticism might be made that inactivated sera from the bloods of those patients on which W. Rs. were made would have lost complément and therefore would not be available for group agglutination determinations. We have tried both active and inactivated sera from the same persons in a series of tests and find that there is no essential difference in the agglutinating powers of the two kinds of sera. We, therefore, feel that we are justified in heartily recommending this method of determining the blood groups in all sera which are used also for W. R.

SERUMS.

CORPUSCLES.	1	2	3	4	5	6	7	8	9	10	Group
1	—	—	—	—	—	—	—	—	—	—	IV.
2	—	—	—	—	—	—	—	—	—	—	IV.
3	—	—	—	—	—	—	—	—	—	—	IV.
4	+	+	+	—	+	+	+	+	+	+	I.
5	—	—	—	—	—	—	—	—	—	—	IV.
6	+	+	+	—	+	—	+	+	—	+	II.
7	+	+	+	—	+	+	—	+	+	+	III.
8	—	—	—	—	—	—	—	—	—	—	IV.
9	+	+	+	—	+	—	+	+	—	+	II.
10	—	—	—	—	—	—	—	—	—	—	IV.

SERUM GROUP.

CORPUSCLE GROUP.	I.	II.	III.	IV.
I.	—	+	+	+
II.	—	—	+	+
III.	—	+	—	+
IV.	—	—	—	—

SERUM GROUP.

UNKNOWN CORPUSCLES.	II.	III.	IV.	
X	+	—	+	G. III.
Y	—	+	+	G. II.
Z	+	+	+	G. I.
J	—	—	—	G. IV.

DISCUSSION.

Dr. J. F. Schneider, Oshkosh: Mr. President, and Members of the State Medical Society of Wisconsin:

Blood transfusion is now an established procedure in the treatment of various conditions.

Frequently a transfusion is a life saving measure, and as such, when indicated, should be given as expeditiously as possible.

If, however, transfusions are done promiscuously, the results will often be most alarming and sometimes disastrous. This is due to the destructive effect which certain isohemolysins have on the red corpuscles of the blood belonging to a different group.

According to Moss these isohemolysins when present in any blood, follow the group relation of the iso-agglutinins, but while iso-agglutinins are always present with isohemolysins, the contrary is not true, isohemolysins are not always present with iso-agglutinins. This is the reason for making the test for the differentiation of the various blood groups from an agglutination reaction instead of from the hemolytic reaction.

Through this work by Drs. Moss and Brem on blood grouping it was demonstrated that transfusions of blood can be given with no reaction of consequences, provided the donor belongs to the same group as the recipient. It is not always necessary, as Dr. Warfield pointed out, that the donor and recipient belong to the same group, but always preferable.

In the method of Dr. Brem, the known serum is tested against the unknown corpuscle, and the known corpuscles against the unknown serum. It is necessary when following this technique, to have both elements of the blood; that is, a suspension of the corpuscles in citrate solution, and also the serum. The latter is obtained by centrifuging of the red corpuscles. I mention that simply to illustrate later the simplicity of Dr. Warfield's technique. He does not use the serum of the recipient at all, simply using a suspension of corpuscles, which greatly simplifies the test.

There was one possible source of error in this method just described by Dr. Brem, and that is that strong isohemolysins may break up agglutinated corpuscles so rapidly as to mask the agglutination reaction. To obviate this, Moss found that antihemolysin is constantly present in the serum of blood whose corpuscles are hemolyzed by a serum belonging to another group. If a little of the antihemolytic serum is mixed with the preparation of corpuscles and serum to be tested, it will prevent hemolysis, and the agglutination will proceed without interference, because serums contain no antiagglutinin.

The diluting of the blood in Dr. Warfield's way of doing this test prevents any hemolysis. It is not necessary in Dr. Moss's test to use always two serums, the known serum with the unknown serum against the known corpuscle, again, the unknown serum with the known serum against the known corpuscles; that is, both serums against known corpuscles, and both serums against unknown corpuscles. That is all done away with in the method of Dr. Warfield just described.

The method outlined by Dr. Warfield makes the technique for determining the group reaction a simple procedure, requiring only one or two drops of blood from the patient who is to be transfused. This test is simple, and can be done by anyone who has known bloods belonging to groups 2 and 3, and the dilution of the blood overcomes any possible error from hemolysis. Where no known blood can be obtained, the blood to be grouped can be sent to a laboratory and its group determined in a very few minutes. The material necessary for obtaining the proper suspension of corpuscles consists only of a small clean vial or test tube containing one c.c. of sodium citrate solution in normal saline to which one or two drops of blood of the patient can be added. On the other hand, if a satisfactory donor cannot be found, blood can be shipped for a considerable distance for transfusion. Anyone can keep a list of willing donors, classified in their respective groups, making the grouping from the blood of individuals on whom Wassermann tests prove negative.

Thus it is evident that no physician can afford not to familiarize himself with this test, so that when a transfusion is indicated it can be given from properly grouped blood.

Dr. Warfield deserves credit for the simplifying of this test for this important determination, making it a test which can be quickly and accurately done by any physician even though he is not a laboratory expert.

PREPAREDNESS.

With the talk of peace in the air and on every tongue, one hears with scant equanimity a strong countercurrent of talk on preparedness. Some of this preparedness doctrine is planned in martial spirit to meet the next clash of arms, some of it in the spirit of maintaining peace by a display of the old spirit of "but by Jingo if we do," some of it arranges to safeguard industrial supremacy, and some of it pleads for a generalized holy spirit of preparedness to accept a new doctrine of internationalism distilled out of the alembic of the bloody conflict.

But there is a highly specialized brand of preparedness, of which no mention is made, and which is strictly applicable to us as medical men—the preparedness to resume our reading. Before the war the *Centralblaetter*, *Archives*, *Zeitschrifts*, *Revues*, *Vratches*, *Beitraege*, and *Grenzegebiets* cluttered the work table as a veritable ogre pile, demanding attention in a subtly obtrusive and insistent way that spelled "duty," and did much to remove both the joy and leisure of life. Gradually, as war progressed, our foreign journalistic visitors grew smaller in bulk, then smaller in number, and finally so insignificant in content as to be reasonably negligible.

With the declaration of peace, not only will the sword be forged into the plowshare, but also will there be a renaissance of the old-time medical logorrhea. We have lulled ourselves into a spirit of *dolce far niente;* we are out of the rut by no fault of our own; there has been no chiding voice of duty. But the ides of March approach. Be prepared!—*Interstate Medical Journal, Jan., 1917.*

REPORT OF A CASE OF BLINDNESS CURED BY AN INTRA-NASAL OPERATION.

BY FRANZ PFISTER, M. D.,

HEAD OF DEPARTMENT EAR, NOSE AND THROAT, MEDICAL SCHOOL, MARQUETTE UNIVERSITY,

MILWAUKEE.

Evidence is fact accumulating that defective vision, and even partial or total blindness is frequently caused by nasal conditions and that defects of vision as well as headaches and orbital pain are not nearly as often due to errors of refraction as has heretofore been believed.

Everyone working in the ethmoidal and sphenoidal region will frequently notice the marked change following such work in conditions in the eye and some men have begun to lay great stress on the importance of the pathology of the nose in cases of failing eyesight.

Dr. Manning Fish, of Chicago, who died last summer, had practically developed a specialty along this line of work and has had some remarkable results.

No one claims that all cases of eye trouble originate in the nose, but we know now that a great many do. The intimate proximity of the orbits with the ethmoidal and sphenoidal sinuses and the very thin partitions between these structures, which are easily perforated by disease, readily explain why these troubles may occur. We know now from experience and from reliable reports that proper operations within the nose will very frequently restore or preserve the eyesight.

The causes of blindness may be either intra- or extra-cranial. The symptoms and signs are most usually bi-lateral in the intra-cranial variety, at least they are not uni-lateral very long, whereas if the nasal condition is at fault we have to deal more frequently with one-sided eye trouble. All the supra-orbital headaches and the headaches at the root of the nose, with tenderness of the supra-orbital region point to sinus disease or intra-nasal pressure of some kind. It need not necessarily be a condition of pus in the nose. Hyperplasia of the turbinates and cells in the nose or other causes of pressure such as polypi, septal deflection or any interference with the drainage of ventilation of the sinuses and the cells are frequently at fault. The following case illustrates this very strongly:

Miss H. C., a daughter of a minister, twenty years of age developed blindness of the right eye. Dr. Nelson Miles Black, who first examined the young lady, presented the following history and report of the case: 9/16/16. Patient while visiting in Northern Michigan one week ago had some pain in her head and noticed vision was blurred in right eye. This condition grew gradually worse. Saw a general practitioner who advised consulting specialist. On 2nd day after symptoms were first noticed she was quite ill with dizziness, nausea, some pain in eye and considerable headache over O. D. By 3rd day vision was gone. Could not distinguish light. She was and is still very nervous, but pain, dizziness and nausea disappeared by 4th day.

No tendency towards constipation. Has some trouble at menstrual periods, excessive flow and some cramps. White at school she wore glasses. This was 4 years ago but has not worn any for about 1½ years. Is not subject to colds in head. Was formerly troubled with bronchial cough when living in Chicago but since living North has been better. Has had sick headaches once or twice a year during the last two years. V=6/V-2 O. D. Absolutely blind. Fundus examination shows about 3 D. choking. Veins engorged and arteries about normal. O. S. Disc hyperemic and physiological cupping gone, but margins clear. Patient referred to Dr. Sperry for physical examination and also advised X-ray. Two central incisors are false and the laterals are "pegged teeth" as also are lower incisors, so advised Wassermann. 9/29/16, Dr. Sperry's examination negative. Referred to Dr. Smith for X-ray which was practically negative as far as pituitary region was concerned. Dr. Hopkinson reports Wassermann negative.

The question first to be decided was whether this blindness was due to an intra- or an extra-cranial condition. Dr. Chas. H. Lemon, who was consulted with regard to a decompression operation, referred the case to me for an intra-nasal examination, the result of which pointed to the nose as the probable cause. We then decided that an intra-nasal operation should be done first, particularly since the right side of the nose was greatly obstructed and the right eye presented a slight condition of puffiness and exophthalmos. Under a general anaesthetic the perpendicular plate of the ethmoid, which forms the upper part of the septum was removed, because this part of the septum was strongly lean-

ing over towards the ethmoidal region of the right side. Having now access to the middle turbinate, which was enlarged, this was removed. I then found, and removed, polyps and enlarged ethmoidal cells and granulomatus material in the posterior ethmoidal region. On exploration of the sphenoid sinus and enlarging the opening of the same, nothing pathological was found within that cavity. Clearing away the anterior ethmoidal cells and the bulla-ethmoidalis and entering the frontal sinus intranasally no satisfactory explanation of the puffiness of the upper eye-lid could be gotten, since there was no pus coming down the frontal duct. We therefore opened the frontal sinus externally and found a mucocele, filling the cavity and exerting pressure. The external wound was closed primarily after the mucocele was removed and the frontal duct enlarged.

The patient made an uneventful recovery, no pus being present at any time.

A few days after the operation the patient began to notice a return of the eye-sight and two weeks after, the eye-sight was apparently restored to normal, and has remained so since then.

Dr. Nelson Black, and also Dr. Clemens Messmer examined the eye after the operation.

The report of Dr. Black says: 10/2/16. V. O. D.=1/L X. Swelling of nerve about gone but still marked neuritis. 10/12/16. V=6/V-2. V. O. D.=6/X. Fundus examination shows disc margin quite clear and no choking.

YAWS: A CLINICAL REPORT OF TWO CASES.

BY E. EVANS, M. D.,

LA CROSSE.

In view of the fact that in spite of our tropical possessions and consequent exposure of numbers of our people to tropical diseases, we are still not accustomed to see in our Northern States, especially in the Middle West, cases of framboesia or yaws, we think the following two cases worthy of being put on record.

Case One.

(Serial No. 6446.) Rev. J. M., a missionary in the German South Sea Islands was on his way home to Germany in 1914 on a sick leave on account of amoebic dysentery when the outbreak of the war compelled his landing in the United States. Some months later he came under observation at St. Francis' Hospital for the amoebic dysentery and was cured by hypodermic injections of emetine. At this time he gave a history of having contracted famboesia in 1906 but had seen no recurrence of the disease for some years. In December, 1915, he returned to the hospital saying that the framboesia had re-appeared. He had small hard callouses or nodules about the size of a grain of wheat on the palmar surface of the index finger and thumb of left hand. These were itchy and painful. There was also a small elevated spot in the left nostril. There were no pustules. He declared there had not been pus in any of these elevations at any time and that they had been present now for ten days or two weeks.

Case Two.

The appearance of this case, where the patient made his own correct diagnosis caused me to send for Case Two who had shown himself at my office for diagnosis on two or three occasions without having a diagnosis made. He gave a history of having acquired an eruption on the soles of his feet shortly after his return from the Philippines during the Spanish-American War. He had tried at various times and places since then throughout the United States for relief of this condition without success. On the sole of each foot there would appear from time to time a rapidly developing small vesicular elevation soon becoming pustular and soon breaking, if not opened by himself, with rapid healing following. During its development, it would be exceedingly painful, and while great numbers of those were not developed at one time, they came in successive crops causing lameness and difficulty in walking much of the time. Careful microscopic examination and cultures made from pustules failed to find any organisms though the attempt was made more than once. When he appeared at this time, there were only two small points of infection on either foot. Careful microscopic examination using Giemsa and Pelikan-Tusche stains failed to show any Spirochaete Pertenuis. Each patient was given .6 grms. of Salvarsan intravenously December 3rd, 1915, and neither patient has had any return of the disease since.

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EDITORIALS

MEDICAL DEFENSE.

WHEN the State Society went into the business of defending its members against suits for malpractice, there was not at that time unanimous agreement among the Delegates. As time has gone on and the number of suits which must be defended has increased, there is heard much grumbling against the measure, by many men in all parts of the State. Some who were in favor of Medical Defense at first, are in doubt as to the great advantage of it, while others who were ardent advocates, are now frankly opposed to it.

It was thought by many that it would be a strong talking point to induce men to join the State Society and now that men are in on account of that one feature, it would be manifestly unjust to repeal the Defense Act and so make it appear that all that was wanted was to get men in on false promises. Once in the Society, the Society would repudiate its action and deprive these men of the one benefit which they saw would come to them by joining the organization. On the other hand it seems to others that the kind of man who only belongs to the Society because of something he can get out of it, is of no great value to the Society.

Medical Defense in theory is a splendid function for the State Society to adopt. In practice the Society is called upon to defend suits which often are not really defensible. The very suit which is the most indefensible and the most flagrant violation of medical practice, is usually the most expensive to defend. The Society has been particularly fortunate, so far as its finances are concerned, in having counsel who has found legal technicalities in otherwise certain indictments. Many men carry Liability Insurance in regular companies and do not need the defense to which membership in the Society entitles them. Perhaps the majority of the 1,700 or more members rely upon their Defense benefits in the Society. The gist of the situation, however, is that money is paid out to defend actions in which the defendant is truly guilty and the Society is using up its last dollar to defend that sort of a case.

It does not seem fair to the men who are honestly trying to do their best, that they should have to pay the bill for the incompetent, ignorant, and sometimes, unfortunately, dishonest man who bungles a case worse than an ignorant layman would bungle it. Up to now there has been no protest against the Medical Defense. It is charged that it fosters careless work, a sort of what-do-I-care-the-Society-will-foot-the-bill attitude. It has served its purpose as a talking-point. A man now in, who does not see the benefits of being in such an organization, except for the Defense benefit, is not of much help to the organization. It is an expense out of proportion to the benefits which accrue, especially in view of the fact, that anyone can protect himself; but to be sure, at a higher cost.

The County Societies should discuss this question for it will undoubtedly be a matter for debate in the House of Delegates next meeting.

DRUG WASTING.

THE popular notion that a bottle of medicine taken by spoonfuls will cure all ailments is responsible for much over-prescribing. Many patients are not satisfied with advice which a doctor may give them but are quite content with a bottle of any concoction which he writes in cabalistic characters on a piece of rectangular paper upon which is printed the doctor's name, residence, phone numbers, etc. Verily superstittion is not the sole property of savage races!

From the belief of the patient in the marvelous virtues of some more or less nauseous compound, to the studied catering to this belief, is but a step and this step has been taken by many a man who signs M. D. to his name. All are guilty, some more, some less. Does not everyone of us know some doctor who daily changes the medicine, writing never less than a four-ounce bottle prescription until every available shelf space in the room is lined with bottles of various combinations of more or less inert drugs? Someone had to pay for all these bottles of medicine and what becomes of them? Thrown away at the end of the illness, many dollars worth of stuff wasted, not so much the stuff as the good dollars which often go to the purchase of worthless drugs, rather than to the purchase of useful food.

It riles us to enter a sick room and to see a variegated row of colored liquids staring at us. Can nothing be done to plug this bunghole through which so much of patients' money drips? If doctors must change the prescription daily could they not give one ounce mixtures? Is the psychic effect of an eight ounce mixture eight times greater or sixteen times greater than a one ounce mixture?

As a matter of fact the more bottles of medicine, the more dense the ignorance of the attending physician. When a disease is labeled, the treatment follows naturally. With an illness which is not diagnosed correctly there can be but a blind groping for treatment. This is the greatest cause of the drug-wasting-habit. It is certain that the more carefully diagnosis is studied and diseases thereby are tagged, the less promiscuous drug-giving there will be.

We shall not live to see this longed-for day, but we should be hopeless pessimists if we did not feel that we were traveling along the road which leads in that direction.

NEW RESEARCHES IN BRONCHIAL ASTHMA.

UP to the time of the experiments on the remarkable phenomenon of anaphylaxis the various types of paroxysmal asthma were explained in many ways. Sudden death accompanied by curious symptoms of respiratory distress had been reported following the use of diphtheria antitoxin (whole horse serum). Why some people had this strange idiosyncrasy was then purely conjectural. Although we had known for sometime that rose-cold and hay asthma had some intimate relation to the pollen of flowers, it was Meltzer who first called attention to the possibility that bronchial asthma was an anaphylactic phenomenon, an expression of the reaction in a sensitized patient to some further inoculation with specific toxins. To the host of workers who have endeavored to construct some order out of the sensitization Chaos, medicine is deeply indebted.

It has been common knowledge that some persons can not be in the neighborhood of horses or fondle cats or dogs or live in certain places in the late summer without suffering from very characteristic symptoms which vary from a distressing hypersecretion of the lachrymal and nasal glands to an intense bronchial spasmodic asthma. Since Dunbar's classical work on the plant pollens we have come to believe that hay-fever and hay-asthma are due to certain common weeds, the chief member being the common rag-weed which grows in every deserted field and by every roadside. The immunization of susceptible persons by suitable preparations of pollen is now a well-recognized therapeutic procedure.

Why were emanations from horses so irritating to some susceptible people? The explanation is given by I. Chandler Walker* in a recent series of Studies on the Sensitization of Patients with Bronchial Asthma to Bacterial Proteins as Demonstrated by the Skin Reaction, and the Methods Employed in the Preparation of These Proteins. Walker experimented with proteins found in the dandruff of the horse and in the hair of the cat and dogs and in the sera of these animals. His general conclusions are "Many patients with bronchial asthma are sensitive to the proteins in the dandruff of the horse and in the hair of the dog and cat, but more especially to the protein of horse dandruff. Comparatively few

*I. Chandler Walker, Jour. Med. Research, 1917, XXXV, 487-497.

are sensitive to horse serum, but more are sensitive to the serum of the dog and the cat.

To determine sensitization with these proteins, satisfactory skin tests may be made by using a fourteen-per-cent. alcoholic extract of horse dandruff and dog and cat hair. For exact work and for successful treatment the various proteins must be obtained from the dandruff and from the hair. Various dilutions of these proteins in their particular solvents should be used in order to determine how sensitive the patient may be to these various proteins."

Here we have the true explanation of the horse "emanation",—the air of the stable full of fine dust of which a great part consists of dandruff shed by the horse. How simple it all is now. Dr. Walker's proof seems absolutely convincing and it is scientific demonstration which is in absolute accord with observed facts and which strikes the mind at once as eminently reasonable.

It would be interesting now to know whether those who have received horse serum intravenously, or, even subcutaneously, as a therapeutic measure, are still sensitive to horse dandruff.

The hair of the dog may not cure the bite, but the alcoholic extract of the hair may immunize some person susceptible to the asthma brought on by contact with dogs. This is certainly most interesting work and further developments will be eagerly awaited by all.

INTRAVENOUS ADMINISTRATION OF MERCURY SALTS.

IN the modern treatment of syphilis, physicians are coming more and more to use the intravenous route to place drugs in the system. Salvarsan and mercury are the only two drugs which have proved their worth and both in combination are generally admitted to be superior to either one alone. There is no reasonable doubt but that syphilis can be cured by mercury alone. Inunctions are dirty and the mercury is not always absorbed. Intramuscular injection of soluble or insoluble salts is often painful and the violent reaction produced tends to limit the absorption of the drugs. One is really working blindly for there is absolutely no way of determining how much of the injected drug is absorbed.

The intravenous method is the method of choice but it has several disadvantages. The chief one is that a phlebitis is started which frequently causes thrombosis of the vein. Then, too, if the drug should not enter the circulation but ever so little be injected into the tissues the most distressing and painful swelling of the whole arm results. To obviate these disadvantages recourse has been had to the mercurialized serum, an albuminate of mercury which is formed when bichloride and serum are placed together. However it is not necessary to use this. One can inject a solution of bichloride directly if certain precautions are rigidly observed. The dose is from 1/6 to 2/3 of a grain every third or fourth day.

The technic which we have found useful is as follows: The dose of bichloride is made up to about 3 cc. with normal saline. A fine, sharp-pointed, 20-gauge needle is then fitted to the syringe, great care being used that the mercury solution does not get into the lumen of the needle. The arm is now constricted until the veins at the bend of the elbow stand out prominently. The skin is wiped with alcohol and a quick thrust made into a vein. The piston of the syringe is pulled out, when blood will flow into the syringe if the needle is in the vein. The constricting band is then released, the solution injected, and the needle left in for two or three seconds. Before withdrawing it, *draw blood back into the syringe.* In this method there is no chance of even the least fraction of a drop of the mercury solution getting into the tissues. If this technic is strictly carried out, we are sure that there will be no phlebitis and no tissue reaction.

BRINGING HEALTH TO THE PEOPLE.

THE campaign of health and prevention of disease goes on aided by many novel ideas to catch the ear and eye of the public. It is after all the impressions gained through sight which seem to be the most useful and lasting. The universal moving-picture craze has its good side as well as its bad side. No well-conducted Health Bureau is without this very valuable ocular demonstrator which entertains while it drives its lessons home.

Many unique schemes have been used in carrying the gospel of health to isolated communities. The North Carolina health department has made use of a delivery truck constructed at an outlay of $750. In the truck is placed a separate unit of a four-cylinder gasoline engine connected to a three k. w. d. c. generator. This cost $360. It has a

capacity of fifty amperes and sixty volts. One hundred feet of stage cable connects the lighting plant with the motion picture machine. To this are also attached a switchboard and string of lights which are hung in any small hall and provide much better light than is usually found in the remote districts. Films are changed every week and the travelling outfit makes bi-weekly or tri-weekly visits to a place. The usual papering of the village is done in advance and the truck with its paraphenalia is itself an advertisement which compels attention.

With this simple outfit the backwoods people in North Carolina are receiving entertainment and education which can not but show appreciable results in a short while.

ELECTRICITY IN MEDICINE.

IT is a far cry from the purely physical experiments in electricity to the application of electricity to treatment for some diseased and functional conditions. The bridge, however, has been passed and today there are numerous pieces of special apparatus designed to deliver certain special kinds of current in the treatment of cases.

We have had very little in our Journal about the uses of electricity in medicine. Volumes are written on the subject. We wish that we could have articles dealing with the various uses of electricity as applied to case reports. There must be many doctors who have had interesting cases in which electricity was beneficial. We do not want any but real case reports and we do not want laudatory effusions. We are after facts—cold, hard facts. We hope the Profession will respond to this invitation.

THE JOURNAL OF UROLOGY.

WE wish to call the attention of our readers to still another aspirant in the already over-stocked journalistic field. We do so with no faltering words but with a firm, full voice, for this is a real addition, so it appears in the opening number, to the long list of American Journals.

It is true, as the editor, Dr. Hugh H. Young, says, that Urology, one of the strong shoots from the parent stem Surgery, has been like a beggar child appealing for a chance to exist from any of a number of patrons. This was hard on Urology, if it were serious-minded, and hard on those who were trying to cultivate the urological field to find so many shell-holes which they had to circumvent, bridge over, or tunnel under. All these circumlocutions took time, hence the desire on the part of those interested in Urology to have a place where they could store their particular knowledge and browse over the field without looking constantly to see where they were stepping.

We are glad to see this Journal. Certainly the first number is most enticing. We have had great trouble to restrain ourselves from immediately signing a check for a year's subscription. There is a quiet dignity about the form in which it is put out; the high-class appearance of the Journal as one glances at the cover. The first articles cover Anatomical, Physiological, Surgical, Experimental and Medical phases of the diseases of the genito-urinary tract. It is an excellent beginning. We greet it heartily and wish it a long, useful life.

NOTICE.

The annual meeting of the Wisconsin Surgical Association will be held at Milwaukee May 9th and 10th. The preliminary program will appear in the next issue of the Journal.

BOOK REVIEWS

PRINCIPLES OF DIAGNOSIS AND TREATMENT IN HEART AFFECTIONS. By Sir James Mackenzie, M. D., F. R. S., F. R. C. P., LL. D. Ab. and Ed., F. R. C. P. I. (Hon.), Physician to the London Hospital (in charge of the Cardiac Department), Consulting Physician to the Victoria Hospital, Burnley. Oxford University Press, American branch, 35 West 32nd St., New York, 8vo, 264 pages; price, $2.50.

This is a most delightful and instructive series of heart-to-heart talks on the heart by the nestor of the modern cardiologists. There is much meat in his terse sentences and much food for thought in his shrewd observations on the relation of the practitioner to medicine. The Journal A. M. A., for the past few weeks, has been printing excerpts from this book as fillers. Possibly some who have read them want to own the book from which such pungent thoughts emanate. Here is the book. The reviewer can testify to the enjoyment and profit he received by reading it from cover to cover and by marking and re-reading certain striking paragraphs.

There are some statements which are not altogether in accord with experimental or more recent clinical investigations. Notably the one on page 162 in which it is said that "In the majority of cases, when auricular fibrillation sets in, it persists for the remainder of the individual's life." Other statements are rather startling as on page 133 where the author says that he has heard of "athlete's heart," but he has never seen one because he does not believe there is any such condition. He is dogmatic, but he has earned the right to be positive.

We recommend this little book most heartily for its refreshing and absolutely individual point of view, as well as for the information contained in it.

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The Wisconsin Medical Journal, Official Publication

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County.	President.	Secretary.
Ashland-Bayfield-Iron	C. J. Smiles, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	H. M. Coleman, Barron	I. G. Babcock, Cumberland.
Brown-Kewaunee	I. E. Levitas, Green Bay	E. G. Nadeau, Green Bay.
Calumet	E. L. Bolton, Chilton	C. L. R. McCollum, Forest Junction
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	Frank Drake, Mendota	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake.
Door	H. C. Sibree	T. C. Proctor, Sturgeon Bay.
Douglas	D. R. Searle, Superior	L. A. Porter, Superior.
Dunn-Pepin	A. F. Heising, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	H. F. Derge, Eau Claire	L. H. Flynn, Eau Claire.
Fond du Lac	G. B. McKnight, Fond du Lac	H. C. Werner, Fond du Lac.
Grant	J. C. Doolittle, Lancaster	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Wiesender, Berlin.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	A. A. Busse, Jefferson	W. A. Engsberg, Lake Mills.
Juneau	Brand Starnes, Mauston	A. T. Gregory, Elroy.
Kenosha	C. R. Caughey, Kenosha	J. F. Hastings, Kenosha.
La Crosse	G. W. Lueck, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hinbenthal, Belmout	H. O. Shockley, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	A. M. Farrell, Two Rivers	W. E. Donohue, Manitowoc.
Marathon	W. A. Green, Wausau	F. H. Frey, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	Luella E. Axtell, Marinette.
Milwaukee	P. F. Rogers, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. R. Bell, Tomah	Spencer D. Beebe, Sparta.
Oconto	C. W. Stoelting, Oconto	T. C. Clarke, Oconto.
Oneida-Forest-Vilas	J. T. Elliott, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	G. A. Ritchie, Appleton	M. E. Rideout, Appleton.
Ozaukee	E. E. Coerper, Fredonia	C. E. Balkwill, Grafton.
Pierce	W. A. Lumley, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	J. H. Hogan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	Gideon Benson, Richland Center.
Rock	T. W. Nuzum, Janesville	E. B. Brown, Beloit.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	M. H. Fuller, Bonduel.
Sheboygan	Otho Fiedler, Sheboygan	C. N. Sonnenburg, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	C. F. Peterson, Independence.
Vernon	J K. Schreiner, Westby	F. E. Morley, Viroqua.
Walworth	J. Howard Young, Elkhorn	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	H. A. Peters, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	J. W. Lockhart, Oshkosh	E. H. Hunt, Oshkosh.
Wood	Ed. Hougen, Grand Rapids	W. M. Ruckle, Grand Rapids.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE COUNTY

Brown-Kewaunee County Medical Society held its annual meeting on January 25th, 1917, at the Beaumont Hotel, Green Bay. The following officers were elected: President, Dr. I. E. Levitas, Green Bay; vice-president, Dr. D. H. Gregory, De Pere; secretary-treasurer, Dr. E. G. Nadeau, Green Bay. delegate, Dr. D. F. Gosin, Green Bay; censor, Dr. W. E. Leaper, Green Bay. After a banquet the meeting was addressed by Dr. L. F. Jermain of Milwaukee, who spoke on "Compulsory Health Insurance." Needless to say this was very interesting and instructive.

E. G. Nadeau, M. D., *Secretary.*

COLUMBIA COUNTY.

At the February meeting of Columbia County Medical Society, held at Portage on February 3rd, the question of a new medical and surgical fee bill was discussed. The new schedule is as follows: Office consultation and examination—$1.00 to $5.00; day visits in the city—$1.50 to $2.00; night visits (9 P. M.—6 A. M.)—$3.00. Country visits—75 cents per mile (one way) plus the regular fee for day visits, and the charge for night visits is $1.00 per mile (one way) plus the regular fee for night visits. The society decided to place a double fee on quarantined cases—smallpox, scarlet fever and diphtheria.

LANGLADE COUNTY

Langlade County Medical Society held its annual meeting at the Hotel Butterfield, Antigo, on December 9th, 1916. Three physicians were admitted to membership: Drs. Edwin R. F. Murphy, Antigo; S. A. Seymour, Elcho; Clayton H. Charles, White Lake. The election of officers resulted as follows: President, Dr. M. J. Donohue; vice-president, Dr. I. D. Steffen; secretary-treasurer, Dr. J. C. Wright; censor, Dr. G. W. Moore. The Society decided not to raise fees at this time. A fee bill is being prepared, and the Society hopes that every doctor in the county will abide by the same. A smoker followed the business session.

MILWAUKEE COUNTY.

Meeting called to order at 8:30 P. M., Pres. P. Rogers in the chair. Minutes of the last meeting read and approved as read. Under suspension of the bylaws, the secretary was instructed to cast the ballot of the society for the election to membership of Dr. F. D. Millard. Drs. H. Reineking, D. J. Hayes and P. F. Rogers were reelected as delegates to the State Society. Proposed bills No. 105a and 107a were read to the Society by Dr. George Ruhland. Motion was made by Dr. Fellman, duly seconded and carried, that this Society go on record as opposed to bills 105a and 107a as presented. These bills were referred to the committee on public policy and legislation. The following resolution introduced by Dr. T. L. Harrington was adopted and the secretary instructed to forward a copy of the same to the Wisconsin State Journal and the Journal of the American Association:

Whereas, The Bayer Company, the manufacturers of Aspirin, is bidding for public favor, and helping a gullible public to acquire the habit of selfprescribing without the benefit of a diagnosis; and

Whereas, Such action places the Bayer Co. in the class with the manufacturers of Peruna, Lydia Pinkham's Vegetable Compound, Duffy's Malt Whiskey, and sundry others of questionable reputation;

Therefore be it resolved, That the Medical Society of Milwaukee County call the attention of the profession to this unethical conduct of the Bayer Co.;

Be it further resolved, That the members of the profession are asked to bear in mind that this company that is now advertising Aspirin to the public in the daily press, is the same company that manufactures Sajodin, Veronal, Helmitol, Tannigan, etc.;

Be it further resolved, That a copy of these resolutions be forwarded by the secretary to the Bayer Company and also to each member of the County Society.

A case of stab wound of the heart was shown by Dr. C. M. Echols. Dr. William S. Miller addressed the society, giving lantern slide illustrations, on "The Lymphatics and Lymphoid Tissue of the Lung and Their Relation to the Extension of Tuberculosis." A vote of thanks was extended Dr. Miller for his interesting address. There were 75 present.

Daniel Hopkinson, M. D., *Secretary.*

ROCK COUNTY

Rock County Medical Society met on January 31, 1917, at the lecture rooms of the Y. M. C. A. at Beloit for its annual election of officers and banquet. The following officers were elected: President, Dr. T. E. Nuzum, Janesville; vice-president, Dr. Harold Helm, Beloit; secretary-treasurer, Dr. E. B. Brown, Beloit. The Society went on record as opposed to compulsory health insurance. A committee was appointed to watch legislation. The Society indorsed the establishment of a tuberculosis sanatorium at the county farm.

WINNEBAGO COUNTY AND OSHKOSH MEDICAL

Winnebago County and the Oshkosh Medical Club held a joint meeting on February 22nd at Lakeside Hospital, Oshkosh. Dr. J. L. Yates, Milwaukee, read a paper on "Surgical Methods of Malign Affections of Superficial Lymphatic Tissue." A general discussion followed the reading of this paper. There was a good attendance, but the combined bad roads and disagreeable weather prevented many out-of-town members from being present.

WOOD COUNTY.

At the January meeting of Wood County Medical Society, held at Marshfield, the following officers were

elected for the year: President, Dr. Ed. Haugen; vice-president, Dr. Hugh Waters; secretary, Dr. W. M. Ruckle; delegate, Dr. V. A. Mason; alternate, Dr. W. G. Sexton; censor, Dr. J. A. Jackson.

NINTH COUNCILOR DISTRICT.

The quarterly meeting of the Ninth Councilor District Medical Society was held at the City Hall, Marshfield, on January 31, 1917. Thirty members were present. Dr. J. S. Evans, Madison, addressed the meeting on "Modern Ideas of Invasion of Micro-Organisms." A smoker at the Elks' Club followed the meeting. The next meeting will be held at Stevens Point in April.

FOX RIVER VALLEY MEDICAL SOCIETY.

The Twenty-ninth annual meeting of the Fox River Valley Medical Society was held at the Elks' Hall, Green Bay, on February 8th, 1917. The banquet was held at the Beaumont Hotel. The annual address in medicine was given by Dr. L. F. Jermain of Milwaukee, his subject being "The Influence of Ductless Glands on Growth, Development and Metabolism." Dr. Dean Lewis, Chicago, delivered the annual address in surgery on "Fractures." Dr. F. Gregory Connell, Oshkosh, spoke on "Diagnosis of the Acute Abdomen"; Dr. E. G. Nadeau, Green Bay, addressed the meeting on "Clinical Examination in Cases of Focal Infection." Officers elected for 1917 are: President, Dr. S. E. Gavin, Fond du Lac; vice-presidents, Dr. J. P. Lenfestey, DePere and Dr. M. J. Sandborn, Appleton, secretary-treasurer, Dr. R. H. Sweetman, Green Bay; censors, Drs. F. Gregory Connell, Oshkosh, J. W. Doren, Marinette, and C. J. Chloupek, Green Bay. Green Bay has again been chosen for the next meeting.

OTO-OPHTHALMIC SOCIETY.

The February meeting of the Milwaukee Oto-Ophthalmic Society was held at the rooms of the Milwaukee Medical Society on February 21, 1917. Dr. Harry Gradle, Chicago, spoke on Surgical Treatment. Others who spoke were: Drs. Nelson M. Black, Charles Zimmerman and P. H. Dernehl.

NEWS ITEMS AND PERSONALS.

The second examination to be given by the National Board of Medical Examiners will be held in Washington, D. C., June 13, 1917. The examination will last about one week.

The following states will recognize the certificate of the National Board: Colorado, Delaware, Idaho, Iowa, Kentucky, Maryland, North Carolina, New Hampshire, North Dakota and Pennsylvania. Favorable legislation is now pending in twelve of the remaining states.

A successful applicant may enter the Reserve Corps of either the Army or Navy without further professional examination, if their examination papers are satisfactory to a Board of Examiners of these Services.

The certificate of the National Board will be accepted as qualification for admittance into the Graduate School of the University of Minnesota, including the Mayo Foundation.

Application blanks and further information may be obtained from the Secretary, Dr. J. S. Rodman, 2106 Walnut Street, Philadelphia.

Dr. R. G. Sayle, Milwaukee, has returned from a month's trip to El Paso, Sante Fe, and San Antonio.

Dr. John W. Nuzum, of Cook County Hospital, Chicago, formerly at Janesville, was recently operated on for appendicitis.

Dr. A. T. Holbrook, Milwaukee, reported as convalescing from a severe illness, suffered a relapse, and is at a Chicago hospital with an attack of renal colic.

Dr. A. J. W. Nixon, for twenty-six years in practice at Delafield, and former postmaster of that town, has removed to Detroit, Michigan.

Drs. John L. Cleary and George Ross, Kenosha, narrowly escaped death on March 1st, when Sam Leonette, an Italian, crazed by the death of a child, who succumbed to diphtheria during an operation by the surgeons, opened fire on them with a revolver. The physicians leaped through a window and escaped. Neither was struck.

Dr. H. C. Webber of the Medical Reserve Corps, U. S. Navy, is taking a practical course in health work under Health Commissioner, Geo. C. Ruhland, Milwaukee. Dr. Webber spends two days each week in Milwaukee.

Dr. B. B. Rowley, Milwaukee, has successfully passed the examinations for a commission in the regular army.

Dr. Julius E. Block, Dundee, has sailed for England, and will later go to France with the British troops.

Drs. E. E. Moore and G. C. Harper have formed a partnership at Merrillan for the practice of their profession.

Dr. J. B. MacLaren, until recently at St. Luke's Hospital, Chicago, has joined the firm of Drs. James Reeve and H. W. Abraham at Appleton.

Oscar Piper, a barber at Milwaukee, was recently arrested on a charge of practicing medicine without a license. This is Piper's second offense. He waived preliminary examination and pleaded not guilty.

"Dr." John Till, New Richmond, is again in the limelight. According to reports he is being sued for the death of Peter Kahl, who died of blood poisoning, caused, it is said, by the application of a Till plaster.

The State Board of Control has endorsed the Onalaska site for the proposed $50,000 La Crosse County Tuberculosis Sanatorium.

Physicians of Mauston, Cuba City, Greenwood, Neillsville and the vicinities of these towns, owing to the increase and constantly increasing cost of all necessities, have increased their fees for services, beginning February 1st.

Announcement is made that regular courses in public health and sanitation will be offered in the schools of Kenosha. The courses will be primarily for children, but are open to citizens who care to take up the work.

Plans are under way to establish an open-air school at Antigo. Money from the sale of Christmas seals will be used for this purpose. (One-half of the amount realized from the sale of Red Cross Christmas seals may be used by a community for work in the prevention of tuberculosis, provided there is an organized association to do the work.) It is intended to start the school with about twenty children.

A committee of the Manitowoc County Medical Society is endeavoring to secure a branch of the State Hygienic Laboratory for Manitowoc.

Compulsory pasteurization of milk throughout the state is urged by the Dairy and Food Commissioner, who is investigating the milk situation in Wisconsin. The investigaton is a complete survey of condtions from cow to cousumer.

The report of Health Commissioner, Dr. D. Andrus of Ashland, dated February 15th, shows that that city is entirely free from contagious diseases of any kind.

Milwaukee, for the first time in one year, has not a single case of small-pox, according to a report of February 9th. On this date there were 440 cases of scarlet fever in the city, and eight cases of measles. This date one year ago showed 640 cases of measles in the city.

Appointment of a physician as a permanent addition to the staff of the Wisconsin Industrial Commission is advocated. He would examine all cases coming before the Commission, and it is asserted, that this would make certain the securing of absolutely unprejudiced testimony, not always possible at present.

A bill to regulate lying-in hospitals has been introduced in the legislature by the judiciary committee of the Milwaukee county board. The bill calls for reports from all such hospitals, the sanction of the district attorney and the superintendent of poor as to any settlement made with the father, and prohibits advertising by the hospitals.

Members of the Medical Society of Milwaukee County are opposed to the Carter bill pending before the legislature. This bill would revoke for one year the license of any physician who fails to diagnose a communicable disease.

A national home for lepers is to be established in this country. A bill appropriating $250,000 for this purpose passed the House of Representatives on May 4th, 1916, and was passed by the Senate on January 25th, 1917.

A bigger and better Baby Week than last year will be held this year at Milwaukee, starting May 14th. The program will be carried out along the same lines as last year with a commercial and educational exhibit, the commercial exhibit defraying the expenses of the entire work. Those in charge of the work are Drs. J. M. Beffel, J. G. Taylor and H. E. Dearholt.

The National Committee for the Prevention of Blindness has passed at the service of the borrower, without cost other than transportation charges (both ways) and breakage, about five hundred slides, arranged for stereopticon lectures on the following subjects: "Babies' Sore Eyes," "Wood Alcohol," "Midwives," "Trachoma," and "Industrial Eye Accidents." Each exhibit consists of a set of five panels, 18 by 38 inches, mounted on heavy compo board, and framed ready to be hung from a moulding, or set up against a side wall. Exhibits are shipped in fibre cases, the weight of each set aproximating twenty pounds.

Ninety medical schools in different parts of the United States have swung into line for preparedness. The enrollment in their graduating classes aggregates more than three thousand young men available for army and navy service. These colleges are conducting a series of lectures on naval and military sanitation, and treatment of the sick in both branches of the service. The lectures constitute a regular course in nearly all medical schools of the country, and are under the supervision of Surgeon-General William C. Gorgas, U. S. Army, and Surgeon-General William C. Braisted, U. S. Navy.

Surgeon General Rupert Blue has issued a statement that young medical men between the ages of 23 and 32, will be given an opportunity to take examinations each month for the grade of assistant surgeon in the U. S. Public Health Service. Boards will be convened each month at Washington, Boston, New York, Chicago, St. Louis, Louisville, New Orleans and San Francisco. Permission to take the examination must be obtained from the Surgeon General. The annual salary is $2,000. The tenure of office is permanent. Public Health officers are ordered to duty in all parts of the world.

Last year Dr. Charles McIntire resigned the secretaryship of the American Academy of Medicine, after twenty-five years of faithful service. In appreciative commemoration the American Academy of Medicine decided to raise a fund, the income of which should be expended in accordance with Dr. McIntire's suggestions. As a consequence the Academy now announces two prize offers, the prizes to be awarded at the annual meetings for 1918 and 1921, respectively. The subject for 1918 is "The Principles Governing the Physician's Compensation in the Various Forms of Social Insurance". The members of the Committee to decide the relative value of the essays awarding this prize are: Dr. John L. Heffron, Syracuse University; Dr. Reuben Peterson, University of Michigan, and Dr. John Staige Davis, University of Virginia.

The subject for 1921 is "What effect has Child Labor on the Growth of the Body". The members to award this prize are: Dr. Thomas S. Arbuthnot, University of Pittsburgh, Dr. Winfield Scott Hall, Northwestern University, and Dr. James C. Wilson, Jefferson Medical College.

For the conditions of the contests address the secretary of the American Academy of Medicine, Dr. Thomas Wray Grayson, 1101 Westinghouse Building, Pittsburgh, Pa.

MARRIAGES

Dr. John P. Zohlen, Sheboygan and Miss Mae Weiss, Milwaukee, January 17th.

DEATHS

Dr. Adalbert Schneider, who for many years practiced in Milwaukee, died recently in Berlin, Germany, aged 55 years. Dr. Schneider was born in Bremen, Germany, and received his education in the Universities of Berlin and Strassburg. He came to Milwaukee in the early 90's and left again for Germany in 1909.

Dr. Charles R. Stanhope, Milwaukee, died of tuberculosis on February 8, 1917, aged 36 years. Charles Robert Stanhope was born in Milwaukee, and educated in the public schools of that city. He was a graduate of the old Wisconsin College of Physicians and Surgeons, class of 1905.

Dr. Henry Ogden, Evanston, Ill., for many years located at Fort Atkinson, Wisconsin, died on February 17, 1917, aged 74 years. Henry Ogden was born at the foot of Lake Koshkonong on May 9, 1843, and here he spent his early years. At the outbreak of the Civil War, he was attending Milton College, and enlisted in the Twenty-first Wisconsin Volunteer Regiment, serving throughout the war. After the war Dr. Ogden came to Ft. Atkinson and was employed at the First National Bank. In October, 1869, he was married to Miss Elva M. Davies. He was a graduate of Rush Medical College in 1881.

MARQUETTE NEWS NOTES.

Dr. F. W. PEABODY from the Peter Bent Brigham Hospital of Boston made an inspection of the medical school in the early part of February.

Dean Louis F. Germain gave the third exchange lecture at Madison on February 8th. On the same day Dr. Bradley of the state university lectured at Marquette on *"Tissue Autolysis."*

Dr. A. S. Loevenhart of the state university gave the fourth exchange lecture at Marquette on March 1st. His subject was *"Observations on Biological Oxidation."*

Arrangements have been made whereby members of the Marquette laboratory staff will give instruction to the Nurses Training class of Columbia Hospital. At the present time Dr. H. C. Tracy is instructing the class in Anatomy.

1,471 patients were treated at the dispensary clinics during the month of January.

DEMOCRACY IN EDUCATION. Probably never in the history of the world was the opportunity for investigation more favorable nor its promise more alluring than at the present time. Within the compass of one generation almost, the intellectual attitude of the European world has been changed. On the one hand, theoretical speculation and *á priori* reasoning have given place to precise and accurate observation and rational and cautious generalization. Philosophy has given place to science. The closet of the student has been replaced by the laboratory of the investigator. This change in intellectual attitude, which has been characteristic of recent times, has been the most potent cause for the change in the content of education to which attention has been directed. The next generation will in all probability be almost completely emancipated from the benumbing influences of a sterile speculation in no way controlled by observation and experiment.

On the other hand the empiricism which was formerly characteristic of many of our attempts at acquiring truth is more and more giving way to the influences of scientific study. Most results in former days were explained incorrectly. Causes were frequently wrongly assigned for phenomena whose occurrence was unquestioned. But in recent years the emphasis which has been laid upon observation and experiment as a necessary means for controlling speculation has discouraged hasty conclusions and too extensive generalizations, and has directed investigation along many lines which have promised greater results than was the case when research was less intelligently directed.—*Pres. Goodnow, Johns Hopkins Alumni Magazine, Jan., 1917.*

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

THE VALUE OF PUBLIC HEALTH NURSES.*

BY J. M. FURSTMAN, M. D.,

HEALTH COMMISSIONER,

LA CROSSE.

About thirty years ago probably the first Russian Thistle was dragged onto the Dakota prairies by the break beams of a freight car, from some point farther west, where some Russian emigrant from Siberia emptied his trousers pocket and thereby planted the seed. That thistle was threshed and beaten and frazzled by its voyage under the rapidly moving freight car until it wasn't much of anything. But it distributed its seeds between the rails of the railroad and some of them blew to the roadside, where, next year, some large round specimens of the Russian thistle grew and ripened. After ripening they lost their hold of the ground and were whirled across the prairies for miles and miles by the first strong wind of autumn.

In those days much of the land that the thistle crossed was native unbroken prairie where many of the seeds dropped but did not grow. However, the thistle did cross one or two new farms where the sod protection against such an infection had been turned over the year before by a breaking plow. There it planted seeds that grew and Dakota's epidemic of Russian thistle was well started. Undoubtedly that original thistle was blown on by the winds until its seeds were all distributed or until it lodged in the clutches of some farmer's wire fence.

In all probability, if a present day Public Health Nurse had been present at the inception of that first thistle along that railroad track, she would have seen to it that its seeds were all shaken out and destroyed before she permitted it to take its frolic in the wind across the miles and miles of future farm lands. If she could have been present when that Russian emigrant landed perhaps, had she suspected what he carried, she would have washed and boiled his trousers for him, or taught plishment of good to all mankind that the profes-

*Read at the Bi-annual Conference of State Health Officers, Madison, Wis.

his wife that it must be done and how to do it. Thus would she have saved millions of dollars worth of time, worry and labor, and millions of bushels of good wheat that was choked to death by an unproductive mining weed.

Had that community been supplied with an old fashioned public health organization, and had they been warned of the approach of the thistle epidemic, perhaps they would have rushed out to turn back the sod on those newly broken farms or to build a protecting wire fence around them, thus seeking to immunize or protect the land from the infection, instead of seeking out, destroying or fencing off the origin of the seed.

ADVANCEMENT OF PUBLIC HEALTH WORK.

Public health work has made considerable advancement, but in spite of all many lives are unnecessarily sacrificed annually. This is true, partly because the public, as well as some of the medical profession, still cling to old ideas. Only within the last few years have courses of instruction in public health work been obtainable, and yet only in a very few schools.

Formerly legislation pertaining to public health dealt only with the surroundings and very little with the individual. Little was then known of the science of bacteriology, or the manner of transmission of communicable diseases. The laws of today must deal more with the individual than his surroundings. Very little was then known of the "carrier", and contact infection; which are today the greatest public health questions before us.

The infectious diseases were attributed to filth, faulty plumbing, foul air and such like; but milk, water, food, flies, carriers and contact infections were not known as being responsible for the transmission of such diseases.

We are learning more about infectious diseases. Consequently we know more about their mode of invasion of the human body, their period of infectiousness and at what period of the disease it is most infectious. We also know that typhoid can only come from typhoid, diphtheria from diphtheria and scarlet from scarlet. Therefore in order to get any of these diseases started in a community they must first be introduced into that community.

We know that a patient suffering from any infectious disease has the infection in his body, and the only way that such infection can leave the body is through the discharges of that body. We know, that if all of the discharges are immediately destroyed the danger of the spread of these diseases is reduced to a minimum.

Both physicians and nurses in years past spent their best energies in trying to cure disease. Now many are entering the higher and nobler realm of preventive medicine, which affords opportunities for a much more valuable service and provides a greater field of usefulness. All that is necessary to secure enlistment for defense against disease is education. Education is the means by which ninety per cent. of permanent efficient public health work is accomplished.

The public health nurse, be she the tuberculosis nurse, the infant welfare nurse, the school nurse or the industrial welfare nurse is today the greatest weapon in public health work. She is to the modern health department what the modern aeroplane is to an army; without her, progress could not be made.

The public health nurse establishes confidence, and renders service in the home. She can secure a hearing where no one else would be listened to. With her knowledge of disease and of the necessity for sanitation, and with her aptness for social service work, she can more readily instill the principles of prevention of disease. She can, in a simple manner, educate the mother in the sources and modes of infection. Above all she can teach those in charge of patients to destroy all discharges and in that manner be instrumental in reducing the number of infectious diseases.

There is no greater help in preventive medicine than the public health nurse. In tuberculosis, infant welfare work, school inspection, or any other welfare work the public health nurse is the strongest link in the chain between the health department and the public.

TUBERCULOSIS.

In the prevention and control of tuberculosis the public health nurse may be regarded as the most important single agency except the sanitarium. This is true notwithstanding the fact that tuberculosis presents so large a problem that almost every private or public organization concerned with the physical welfare of humanity is either directly or indirectly a co-operative agency in its control. The public health nurse is confronted with a task so large, and an opportunity so great for the accomplishment of good to all mankind that the profes-

sion demands the highest grade of intelligence, training and skill.

The public health nurse, detailed for tuberculosis work should conduct her operations with the following specific objects in view:

To secure immediate examination by competent physicians of all persons suspected of having tuberculosis.

To secure a bacteriological examination of the sputum of all persons who have had a cough for a month or more.

To secure the examination of competent physicians of all persons who have been exposed to a known infectious case of tuberculosis.

To secure sanitarium or hospital treatment for all cases of tuberculosis.

The public health nurse must have a general knowledge of contagious diseases, especially their mode of invasion of the human body. The various means by which they spread and the measures regarded as essential in their treatment and control must also be known. The fundamental purpose of the work of the public health nurse engaged in tuberculosis work is to combat tuberculosis in its war upon humanity. This must not be lost sight of when she may be called to other phases of public health work.

Forms and procedures are necessary in the technique of almost any class of work, they are part of the machinery with which results are obtained, but they must not be looked upon as more than a means by which results are obtained. It is excellent, and necessary in tuberculosis work to have a complete record of all diagnosed cases, including those under medical observation and those returned from sanitariums and hospitals. It is also essential to secure the entrance into such institutions of diagnosed acceptable patients, and to keep suspected cases under observation until proved to be "no cases". Known cases not isolated by entrance into institutions must be visted or kept in touch with, through health officers and physicians.

The general social service work incidental to the searching out of tuberculosis patients must be kept subordinate to the main object, its prevention. For example; adequate relief without effective isolation, or oversight, of the patient is not sufficient.

The preliminary work of the public health nurse detailed to do tuberculosis work should consist of a survey of the special factors in relation to the disease in that community. It should include a tabulation of the number of reported cases; the number of deaths, and the ratio between the reported cases and the deaths from tuberculosis.

Such survey should take note of the institutional and other facilities and the attitude of physicians and the co-operating health agencies. Any systematic work already undertaken or proposed, the enforcement of the tuberculosis law, and any special conditions which may effect the entire local situation must also be included. This survey will provide exact information for use as a basis for her subsequent operations.

It may not appear, from information thus obtained, that the number of deaths equals or exceeds the number of reported cases; or that the number of reported cases and deaths are exceptionally small as compared with the size and character of the community. It is well known that, on the average, each case of tuberculosis, which results in death gives rise to five active cases. For instance: if there were ten deaths from tuberculosis in the community last year it is probable that a thorough search will develop fifty cases at the present time. Should the nurse find that a considerable less number of cases have been reported it is just grounds for the suspicion that some cases are being concealed. The value of the public health nurse will depend largely upon the work thus systematically begun.

Visiting the reported cases will reveal other cases in the same families. The general condition of the case and the precaution or lack of precaution which is being used in the family to prevent other cases will be learned. The financial condition of the family and other matters involved in the transfer of the patient to an institution will also be learned by a visit. All such work should be done, so far as possible, in co-operation with the physicians and health officers. One clue will lead to another. Evenually systematic efforts will result in the discovery of the major part of the active cases in the community.

Naturally, successful work calls for tact, diligence, patience and skill. The public health nurse must repeatedly overcome the human elements of ignorance, prejudice and opposition, both from patients and others who may misunderstand her purpose.

The persevering nurse who labors aggressively to unearth and provide for all the cases of tuberculosis in the community, will inevitably find the hospital facilities for their care inadequate. Tuberculosis is largely disease of poverty. Where poverty

is there also are the complicated economic problems which prevent treatment in hospitals and sanitariums. There also, ignorance is; and the value of the public health nurse consists largely in her ability to instruct such people how to protect themselves and properly care for the invalid which, in the large percentage of cases cannot be sent to an institution.

INFANT WELFARE WORK.

The infant mortality rate is very high, in spite of all the advancement we have made, and yet, it is considerably lower than it ever was in any other age of which we have any record. We cannot attribute all of this reduction to an improvement in the milk supply. When the question of infant mortality was first taken up, emphasis was laid upon the milk supply. It was improved. Milk stations were created, but still the death rate was unreasonably high, until the infant welfare phase of public health work was undertaken. Then the death rate of infants began to decrease.

What part did the public health nurse play in this important accomplishment?

She called at the home and taught the mother the essential principles of hygiene. She taught her how to prepare the food for her babe. She taught her how to properly clothe the infant. She impressed upon that mother the importance of fresh air and sunshine. She also taught the parents that it was not necessary for their children to have measles and whooping cough, and that the longer they could be prevented from having these diseases the better their chances for recovery would be when they did get them. She instructed those parents that the mortality in these two diseases in children under two years of age, is greater than that of diphtheria and scarlet fever combined. No one can accomplish more than the public health nurse in a heart to heart talk with the mother who is always anxious and willing to learn when the health of her babe is at stake. The value of the public health nurse's knowledge thus imparted, free as Heaven's sunlight and air, are as potent as Portia's plea for Antonio. Babies are precious pounds of flesh and she is saving them.

SCHOOL INSPECTION.

School inspection has two definite aims; the early recognition and exclusion from school of children suffering from acute communicable diseases, to assist in preventing epidemics; and the recognition of physical and mental defects and abnormalities in order to encourage remedial measures.

It must be acknowledged that the city children are much better provided for in this respect than those who attend rural schools. Medical inspection in large cities has reached a high degree of efficiency, whereas in rural districts it is largely a perfunctory procedure, too often conducted by persons without the knowledge and experience which the work requires.

Nevertheless, even with forces at hand in rural communities a much greater proficiency can be obtained by impressing upon the public the extreme importance of correcting these defects, for the present and future welfare of the children. Very little can be accomplished except by hearty co-operation between local health and school officials; by systematic instruction of school teachers and pupils in hygiene and the recognition of disease; and by the appointment of that nurse who by knowledge and experience is best equipped for the work, for which she shall receive adequate compensation.

The public health nurse must enter the home and explain the necessity of having physical defects corrected. Such a visit will result in a great many of these defects being corrected. In many cases the parents are glad to have their attention called to such defects, but sometimes it requires a great deal of persistency on the part of the nurse to obtain results.

Formerly we fought an epidemic by pounding its surroundings with general clean-up work. We struck at everything in general and nothing in particular, like a bewildered pugulist. The epidemic continued because we had not yet learned its pathways from house to house. We did not yet know of the great public highways of epidemics: *milk, water, food* and *flies;* nor about "carriers" and contact infection.

Carriers and contact contagion are of the greatest importance. It is in this that the public health nurse, visiting the schools, plays the most important part in public health work. She follows the absentee from school into the home. There she detects communicable disease in its inception and immediately causes a protecting wall to be thrown around the case to prevent it from infecting others. She shakes out and destroys the thistle seeds and makes sure that the other children in that family are not carriers before they are permitted to again enter the public school. She also goes back to that

school and makes a search for other sources of infection.

The public health nurse prevents epidemics and keeps the schools open and the attendance at the highest possible point, thus conserving the taxpayers' money. She lessens the doctor bills and the anxious hours of fond parents watching at the sick beds of beloved children. She not only saves innumerable lives but renders many other lives livable and more useful. For every penny of her salary she saves dollars of the public money and makes other dollars buy more. She is the eyes, hands and arms of the health department, the friend of the mothers and the savior of the children.

NEWS ITEMS AND PERSONALS

Miss Grace Palmbach is still ill at her home in Appleton.

Miss Stella Fuller, who is in charge of the Manitowoc County Sanitarium for Tuberculosis, has resigned to become one of the workers for the Wisconsin Anti-Tuberculosis Association.

Miss Mary E. Good, Superintendent of Nurses at the County Hospital, Wauwatosa, and Miss Mathild H. Krueger, Rural Health Nurse, Dunn County, will attend the national meeting of the American Nurses' Association in Philadelphia April 25 to May 2. They go as official delegates from the Wisconsin State Nurses' Association. Miss Krueger will also represent the State Board of Nurse Examiners, being appointed by the Governor to act as delegate from that body.

Miss Mary C. Wheeler, Superintendent of the Illinois Training School, spent the week of March 5th in the state visiting some of the affiliated schools of the I. T. S. Her itinerary included Janesville, Mendota, Grand Rapids, Neenah, Oshkosh, Milwaukee, and Kenosha.

On February 16, a local dramatic company of Neenah, trained by Mr. T. E. Gillin of Chicago, played "Where the Train Divides" to a full house for the benefit of the Theda Clark Memorial Hospital of Neenah. The playing was excellent and well received. The proceeds form a nucleus for an endowment fund for a child's bed. About $250 has been received for the fund.

At the annual meeting of the Board of Trustees of the Kenosha Hospital it was decided to offer an annual scholarship in public health nursing. It will be given to a member of each senior class who, in the estimation of the Superintendent, seems best fitted for the work. The class of 1918 will be the first privileged to be represented in the course in Public Health Work offered by the Wisconsin Anti-Tuberculosis Association with the co-operation of Extension Division of the University of Wisconsin and the various Public Health and Social Agencies in Milwaukee.

Miss Elsie Halbert of the Coast Hospital, Sidney, Australia, who has been acting as supervising nurse of the Maternity Department of the Kenosha Hospital, has resigned her position and after an extended trip through the southern states, expects to return to Australia via England. Miss S. V. McGivern, graduate of St. Joseph's Hospital, Marinette, Mich., fills the vacancy made by Miss Halbert.

Four nurses of the Madison Emergency Detachment, assigned to duty through the Red Cross to Military Hospitals on the Mexican border, write interesting letters home regarding their work. They report that they are on eight hour duty and are enjoying their experience very much. Miss Sarah E. Albers and Mrs. Frances Ochsner were detailed to Eagle Pass, Texas and Mrs. Clara E. Schmitt and Miss Frances Hessman to Brownsville, Texas.

The February meeting of the Milwaukee County Nurses' Association was held at the Club House on the evening of the 13th. Red Cross work pertaining to the organization of the Milwaukee Base Hospital Unit was freely discussed and many applications for enrollment were received. The Association pledged $10 to the Lincoln Memorial Fund.

The Columbia Hospital Alumnae Association of Milwaukee met in the Nurses' Club House on the evening of March 2nd. Re-organization was the principal business of the evening which resulted in the following officers being elected: President, Miss Grace TeBrake; Vice-president, Miss Eva Giesen; Secretary, Miss Bessie Busse; Treasurer, Miss Jane Reynolds.

PROFESSIONAL SMILE.

The world grows brighter year by year
Because some nurse in her little sphere
Puts on her cap and grins and sings
And keeps on doing the same old things,
Taking the temperatures, giving the pills,
To remedy mankind's numerous ills;
Feeding the baby; answering the bells,
Being polite, with a heart that rebels,
Longing for home, and all the while,
Wearing the same old professional smile.
Blessing the new born babe's first breath,
Closing the eyelids that are still in death,
Taking the blame for the doctor's mistakes,
Oh, dear! what a lot of patience it takes.
Going off duty at seven o'clock,
Tired, discouraged, just ready to drop,
But called back on special at seven fifteen,
With woe in her heart, but it must not be seen.
Morning, evening, noon and night,
Just doing it over and hoping it's right.
When we lay down our caps and cross the bar—
O Lord, will you give us just one little star
To wear in our caps with uniform new
In that city above where our head nurse is You.

—*The Illinois Training School Year Book.*
Published by Class 1918.

BOOK REVIEWS

ORAL ABSCESSES. By Kurt H. Thoma, D. M. D., lecturer on oral histology and pathology and member of the Research Department of Harvard University Dental School, Instructor in Dental Anatomy, Harvard Medical School, Oral Surgeon to the Robert B. Brigham Hospital, Visiting Dental Surgeon to the Long Island Hospital, Consulting Oral Surgeon to the Boston Dispensary. Ritter & Co., Publishers, Boston, 1916.

Among the books that treat of this subject, this one ranks high. It will find many friends among dental surgeons and physicians, as there is no subject in the last few years that has excited more general interest. The oral abscess which has always been with us though its potentialities were unrecognized, has been inquired into by the clinician and laboratory man, and its influences on the human economy are a startling discovery. Dr. Thoma has given us a masterly exposition of the subject and done it in simple, easily-read style.

SYPHILIS. By Loyd Thompson, Ph. B., M. D., Physician to the Syphilis Clinic, Government Free Bath House; Visiting Urologist to St. Joseph's Hospital; Consulting Pathologist to the Leo N. Levy Memorial Hospital, Hot Springs, Arkansas; First Lieutenant, Medical Reserve Corps, United States Army; Member of the American Urological Association and the American Association of Immunologists. Octavo, 415 pages, with 77 engravings and 7 colored plates. Cloth, $4.25, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

This is a very readable and useful book covering the numerous manifestations of syphilis. Chapters are devoted to the history, the pathology, symptoms, prognosis and treatment of syphilis, as to its effects on the circulatory, respiratory, gastro-intestinal systems, the liver, spleen, pancreas, the glands of internal secretion, the genito-urinary organs, the bones, joints, tendons and muscles, the eye and the ear and the nervous system.

Part I is devoted to the history, the etiology, pathology and diagnosis, clinical and laboratory, of syphilis, containing also an excellent chapter upon treatment.

Part II is a consideration of regional syphilis and Part III, a rather short but interesting account of congenital syphilis. Coming as it does after five years of salvarsan therapy, this book is of great interest and of much practical importance.

Very complete directions are given for the performing of the Wassermann test, the Luetin test, Landau's color test, the Hecht-Weinburg reaction and the Lange colloidal gold test. The treatment of syphilis by mercury preparations receives a careful and complete description. Careful directions are given for the intravenous and intra-muscular salvarsan and neo-salvarsan injections.

The Swift-Ellis, the Byrnes, the Ogilvie and the Wile methods of intra-spinous injections of salvarsanized and mercuralized serum in the treatment of tabes, and the results from this and from the intra-cranial treatment of paresis are given in detail.

A MANUAL OF NERVOUS DISEASES. By Irving J. Spear, M. D., Professor of Neurology at the University of Maryland, Baltimore. 12mo of 660 pages with 169 illustrations. Cloth, $2.75 net. W. B. Saunders Company, Philadelphia and London. 1916.

The admirable qualities of conciseness and thoroughness are blended almost perfectly in this new book on Nervous Diseases. The reader is surprised by the completeness of description and by the way the entire field of nervous diseases is covered in a book so compact. The subject matter is well up-to-date and some of the newer diseases of recent description such as progressive lenticular degeneration are well described. Many of the illustrations are new and all of them are good.

Considering this book as a manual, which is what the author intends the book to be, we are very favorably impressed with the book as a whole, and know of no manual upon this subject which we would rather place in the hands of the student of nervous diseases. B. B. R.

CONSTIPATION. OBSTIPATION AND INTESTINAL STASIS. By Samuel Goodwin Gant, M. D., LL. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Second edition enlarged. Octavo of 584 pages, with 258 illustrations. Cloth, $6.00 net; Half Morocco, $7.50 net. W. B. Saunders Company, Philadelphia and London. 1916.

This book is a voluminous discussion of the etiology, diagnosis and treatment of constipation. To our minds, it is much too voluminous for practicability. In order to find any very useful bits of information, one must needs wander through a great deal of material.

There is altogether too much repetition of subject matter, and all the real useful and practical discussion could have been embodied in a book one-half its size. We look in vain through this ponderous volume for anything really new upon the subject. The war which this author wages upon the indiscriminate use of purgatives, cathartics and enemas is certainly to be commended.

Psycho-therapeutic treatment of constipation is given four pages, the dietetic treatment receives five, while the general treatment is generously given seven pages. Treatment by hydro-therapy—internal by enemas and water drinking, and external by means of baths, rubs, douches, compresses and packs, electric treatment by the faradic, galvanic and high frequency currents and mechanical treatment covers 71 pages. The last two hundred pages of this book is a description of the surgical measures for the relief of constipation such as intestinal anastomosis, enterectomy, enterostomy, proctectomy, closure of artificial anus and focal fistula, intestinal exclusion, colopexy and operations upon the rectum.

Detailed and clear directions are given for the performance of these operations and the indications for the operation of choice. The many illustrations throughout the entire book are excellent.

The only thing which we notice particularly as lacking, is an adequate discussion of the use of the X-ray in the diagnosis of constipation. This diagnostic procedure is daily becoming of more importance in gastro-intestinal work, and the few pages devoted to its description and the two or three plates illustrating its use, is entirely inadequate.

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ORIGINAL ARTICLES

PEDIATRICS AND ITS RELATION TO THE GENERAL PRACTITIONER.

BY WALTER R. RAMSEY, M. D.,

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ST. PAUL, MINN.

The proper conservation of child life is now universally recognized as one of the chief functions of society and the state. A little book issued by the State of Indiana in the interest of its children and distributed free to every family in the State begins with the following "creed":

"Every child has the inalienable right to be born free from disease, free from deformity and with pure blood in its veins.

"Every child has the inalienable right to be loved, to have its individuality respected, to be trained wisely in mind, body and soul, to be protected from disease, from evil influences and evil persons and to have a fair chance in life."

"That State is delinquent which does not ceaselessly strive to secure these rights to its children."

That it has taken society several thousand years to come to this conclusion is one of the things we must attribute to evolution.

The medical profession generally has been slow to realize its responsibility in this great movement and many times has been content to follow the pace set by lay men and women. Men like Nathan Straus have done more to bring about the improvement of the milk supply in New York than all the doctors put together, a few of whom are still debating whether they can conscientiously advocate the pasteurization of milk for babies.

Of every 100 children born in this State, 17 die during the first year of life, and during the succeeding years a considerable percentage of the remainder succumb, or carry through life the marks of a bad early environment. That most of these children are normal at birth makes the situation all the more shocking. The increase in population of this State can only be maintained by the difference between births and deaths since immigration has practically ceased. Until recently the baby has been a biproduct in the practice of obstetrics and whether a baby lived or died was thought to be a question of the survival of the fittest.

The child was regarded as a miniature adult and was given consideration in proportion to its size. It is now known that it has a physiology and pathology of its own and whether it lives or dies depends largely upon the kind of care and food it receives.

The medical atmosphere of any community will depend largely upon the character and education of the physicians in that community. To say that the function of a physician is in the interest of public health is axiomatic. If, therefore, he does not fulfill that function he has no right to be in the community, at least in the capacity of physician.

In the short time alloted me I cannot do more than point out some of the common fallacies held by physicians relative to pediatrics and, in as far as possible, correct these errors.

First, regarding breast feeding, many physicians have the idea that a large percentage of the women in this country cannot nurse their babies. This is an error, since 80 to 90 per cent. of the mothers can nurse their babies in whole or in part for all or a part of the first year.

Most of the failures in nursing are due to faulty technique. The following history will serve to illustrate:

Baby J., normal at birth, weight 7½ pounds. Mother healthy, no complications due to labor. Baby put to breast soon after birth and thereafter every two or three hours. On the second day, the baby began to cry, and there were several stools, at first black and tarry but soon becoming green and watery. The following day the stools began to be mixed with curds, varying in size from a pin head

to that of a small pea. A dose of castor oil was ordered, after which there were one or two movements. After the oil, the stools looked slightly better for a day; the crying however persisted and another dose of oil was given with no improvement in the symptoms. During this time the whole household was in an uproar and no one, including the mother, had slept any. The physician was called up by 'phone, and he asked to have a sample of the milk brought in, and a specimen of the stool. An analysis showed the stool to consist of considerable mucus and many fat curds. After letting the milk stand over night, it showed a much larger percentage of cream than normal. The doctor therefore made a diagnosis of "too rich" milk and advised that unless the situation improved soon, the baby should be weaned. What was the real difficulty? Bad technique throughout.

In the first place the baby should not have been put to the breast more than two or three times during the first 24 hours. There is only a small amount of colostrum in the breasts and it is laxative in character.

During the second 24 hours the baby should have been put to the breast every 5 or 6 hours, and on the third, every 4 hours. After the establishment of lactation six feedings during the day at 3 or 4 hour intervals is almost always enough and often 5 are sufficient, the point being to give the baby the smallest amount of food upon which it will properly maintain its gain in weight and nutrition. Green, frequent, curdy stools, almost always means overfeeding, unless the mother is taking laxative drugs, which will be eliminated in the milk and produce similar symptoms. The quantity may be varied by increasing or diminishing the time at a feeding, and by increasing or diminshing the interval between feedings—in normal full term infants never less than three hour intervals and if the milk is rich and abundant 4 hour intervals with five feedings in 24 hours. The amount of milk required at different ages is definitely known. It is therefore an easy matter to determine the amount taken by weighing the baby before and after feedings.

There is practically speaking no such thing as bad breast milk. The average analysis of breast milk gives practically no information of value. The percentage of fat, varies much from day to day, from nursing to nursing, and very markedly, depending upon what part of the content of the breast was secured for analysis. For example the first ounce might contain only 2 per cent. fat while the last ounce might contain 7 or 8 per cent.

Physic such as Castor Oil should never be given to young babies, and very seldon to older ones. The routine order "a dose of Castor Oil on the third day" is responsible for many failures in nursing, and consequently many deaths. Many of the failures in nursing result from overfeeding during the first and second week.

Another common fallacy is, that the stomach at different ages can hold only a definite amount of food. The fact is that infants at two or three weeks often get 3-4 ounces during the early morning nursings and late in the day the amount will often diminish to one or two ounces. It is therefore apparent what false information would be gained if the total quantity secreted in 24 hours were based upon one weighing before and after nursing.

The fact that a mother has insufficient milk is not a reason for weaning. Give all the milk secreted and make up the deficiency with properly modified cow's milk. The frequent advice given to nurse the baby two or three times during the day and give feedings from bottle between, results in less milk being secreted as the greater stimulus to the secretion of milk is the regular complete emptying of the breasts. The breasts should be emptied and the deficiency made up with properly modified milk. In many cases the proper secretion of milk is not complete until two or three weeks have passed, and often the amount may be increased indefinitely by increased demands. Before deciding to wean a baby always remember that the mortality in bottle-fed children is 6 to 10 times greater than in those fed at the breast.

Regarding the artificial feeding of infants. Any food which has not milk as a base is a dangerous food for infants. Practically all of the dessicated foods are too high in sugar and too low in animal proteid and fat. When breast milk cannot be secured, clean properly modified cow's milk should be the food for infants. After the 6th or 7th month this should be supplemented by some other food.

In the securing of cow's milk great care must be exercised in its production and handling, as milk, of all foods, is the most common carrier of disease.

The contamination comes from two chief sources: 1st, the cows themselves; 2nd, the handling.

Cows suffer from several diseases, the germs of

which are given off in the milk and may infect human beings.

A large percentage of the market milk sold in large cities contains tubercle bacilli. Of 107 samples of market milk examined in New York, 16 per cent. contained tubercle bacilli, 200 samples of market milk examined in Chicago, 10:5 per cent. contained tubercle bacilli.

A disease known as *Garget* frequently affects cow's udders resulting in abscess formation and the elimination of large quantities of pus and streptococci in the milk.

A streptococcus of human origin may readily infect cow's udders from the milker's hands. An epidemic of over 4,000 cases of malignant sore throat occurred in Boston three years ago. The primary source of the infection was from the throat of one of the milkers, in a certified dairy.

It is not improbable that the Bacillus Abortis which produces epidemic abortion in cattle, may be transmitted to women. Work to determine this is under way at the University of Minnesota. That milk is a common carrier of such disease as scarlet fever, diphtheria, measles and typhoid fever has been definitely proven. Two years ago we had an epidemic of 250 cases of diphtheria resulting from the milk being contaminated by a milker with a mild diphtheria. Several small epidemics of typhoid during the past year have been definitely traceable to the milk.

In addition to the chances of contamination from the sources mentioned, the average milk contains a large quantity of filth mostly in the form of cow manure which drops from the udders and flanks of the cow, in milking.

The greatest care should be exercised therefore in securing clean milk from healthy cows free from disease-producing organisms. There is one thing more which is absolutely necessary to make milk safe for infants, and that is, either proper pasteurization or boiling.

Pasteurization at 150 F. for 30 minutes destroys practically all the pathogenic organisms and does not change the milk sufficiently so that it can be detected even by the most fastidious. It does not change the physical characters so that it is possible to say that it is less nutritious than raw milk. Where pasteurization cannot be carried out properly, the milk should be brought to the boiling point for a couple of minutes. This will answer the same purpose, but does change the taste somewhat. To obviate any danger of scurvy from giving cooked milk to infants, a few teaspoons of orange or some other uncooked fruit juice should be given daily.

The modification of cow's milk for infants according to definite percentages had its origin in the belief that cow's milk could, by juggling the percentages of the different elements, be made closely to simulate mother's milk. This theory is now known to be fallacious as no amount of modification can transform the milk of one species of animal into that of the other.

Another fallacy was that the proteid of cow's milk was the element from which most of the difficulty arose both in the production of vomiting and in the appearance of curds in the stools. This has also to a large extent been disproven, for although the casein in the milk may in a mechanical way give trouble in passing the pylorus, and appear in the stools in large curds, this may be obviated by boiling the milk or by adding sufficient alkali such as Sod. Citrate to bring the curds into solution.

The fat of cow's milk is the element which gives the greatest difficulty in digestion and it will be found to be the last element to leave the stomach.

The pale hard stool from which infants, fed on cow's milk, frequently suffer, are not as was formerly taught, composed of undigested proteid but to unassimilated fat, largely in the form of calcium and ammonium soap. The pale color is not as was formerly thought, due to the absence of bile, but to the fact that the bilirubin is transformed by the bad chemistry to a colorless salt known as urobilinogen. Children suffering from chronic fat intolerance are usually pale, flabby, and markedly lacking in normal vigor. Such a condition unless corrected frequently leads to the condition known as marasmus or simple atrophy. The urine in these cases usually smells strongly of ammonia, so much so that not infrequently the mother complains that when she changes the diaper the ammonia smarts her eyes.

When such a condition is found to be present the fat should be largely reduced or eliminated for a time and a food given, consisting of a fairly large percentage of starch and sugar; such as malt-soup or the buttermilk formulae.

Instead of the percentage method now rapidly disappearing, it is usually sufficient to give the simple milk mixtures, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, and whole milk, adding enough gruel and sugar to bring the caloric value to the needs and tolerance of the individual child.

It must be remembered that most of the gastro-

intestinal disturbances of infants are due to overfeeding. No child should have more than one quart of milk in 24 hours and when it needs more food it should be added in some other form.

In order to know whether a child is being overfed or under-fed, every physician should be able to estimate the caloric value of the food. The average text book's presentation of the subject of caloric values is so difficult to understand that it is little wonder the average physician regards it as a problem he is willing to leave to the pediatrist. The estimation of the caloric value of any food mixture is in reality so simple, that in one hour I can teach any Junior medical student to reckon calories with his eyes shut.

The caloric needs of the average infant during the first year is approximately 50 per pound of body weight. This estimate is of course only approximate, but is a valuable check. I frequently see children who are receiving more than twice the amount of food needed, with severe intoxication, as a result of improper metabolism, which requires months from which to recover.

I cannot leave this subject without touching upon proteid intolerance. There are certain children who after eating certain proteid foods suffer a definite train of symptoms. For example a susceptible child may within a few minutes after eating an egg have intense itching of the skin sometimes accompanied by urticaria, the conjunctivae may be injected, and there may be difficulty in breathing. In children prone to asthma an attack may be precipitated. It is not uncommon that children are intolerant to cow's milk especially those of an exudative diathesis, and it will be found that the tendency to skin eruptions from which some children persistently suffer will disappear when milk has been largely eliminated from their diet. Susceptible children will usually give a skin reaction if the Von Pirquet test is made, substituting the suspected proteid such as egg albumin or milk for the tuberculin.

Concerning the diet for older children after the first year. It is a common fallacy that up to the third year, cow's milk should constitute the largest element of the diet. This is a serious error. Cow's milk was primarily intended for its own young as was the milk of all other mammals. It is fair to assume therefore, that cow's milk was never intended for human consumption. As far as the writer knows there is no other animal except the human, where its young receives milk from the mother after the first year, in fact it is rare that the lactation period exceeds a few weeks or months and the breast milk is early supplemented by other food. That milk is a valuable addition to the diet of most children there is no doubt, but it does not take the place of a mixed diet after the first year. Children who are fed too exclusively on milk are pale, flabby and constipated, and lack the normal vigor of healthy children.

The giving of excessive sweets to children is another common cause of poor nutrition. Children who eat sweets between meals will not eat the proper amount of plain food at their meals, and it is upon the plain food that the proper nutrition depends. The old adage "hunger is the best cook" applies equally to children and adults.

There is no doubt that excessive sweets by their production of acid in the mouth results in the destruction of the enamel of the teeth. That decayed and abscessed teeth are an extreme menace to the health of any individual we are just beginning to find out. Not only is the mastication and assimilation of the food interfered with, but many of the organisms are absorbed directly into the circulation, producing frequently multiple arthritis, chorea, endocarditis, etc. I am convinced from careful observation that many of the cases of tonsillitis in children are produced by direct infection from the teeth.

That adenoids whenever present in sufficient size to obstruct the breathing through the nose, should be removed goes without saying, but that every tonsil because it is larger than normal should be extirpated I am equally sure is fallacious.

I have rambled along at considerable length presenting these every-day commonplace problems, and I might go on indefinitely, but I will not take your time and exhaust your patience.

I have presented these simple problems, because they are fundamental in the interests of child welfare. They are problems which the great mass of the medical profession have not met, and are now meeting in the best interest of public health, and the future welfare of the nation.

A large part of the cases which come to us as pediatrists are cases which belong to the general practitioner.

We are treating daily many children at the public clinics from fairly well-to-do parents, because they have failed to get results from their family physicians. Most of them come with simple problems in feeding, similar to those I have described.

We are frequently censured by the physicians for treating these cases. We have consistently, for years referred those cases back to their physicians, only to have them return because the physician did not take any interest in the case, or was content to write a prescription for some worse than useless medicine, without taking the trouble to inquire into the fundamental causes of the conditions for which the patient sought relief.

The practice of pediatrics is not the haphazard affair it was a few years ago, but is based upon as solid a scientific foundation as is internal medicine, surgery or opthalmology.

There are no more interesting problems anywhere to be found in the whole field of medicine, nor any, the proper solution of which are followed by a greater fundamental benefit to humanity.

MYOCLONUS, WITH A REPORT OF A CASE OF UNVERRICHT'S MYOCLONUS EPILEPTICUS.*

BY B. B. ROWLEY, M. A., M. D.,

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During the last twenty years, Myoclonus has been, and is still, a word which has been greatly misused, the term having been applied to such diverse and entirely separate clinical entities as Tic Convulsif, Motor Episodes of Hysteria, Paramyoclonus multiplex, the degenerative Choreas, and Myoclonus epilepticus. The present paper will deal with the only two diseases to which the term Myoclonus should be employed, namely, Paramyoclonus multiplex of Freidrich and Myoclonus epilepticus of Unverricht.

Historical: The history of Paramyoclonus begins with the first careful description of the disease by Freidrich in Virchow's Archives, in 1881. Because of the confusion into which this disease fell during the next few years, lasting even up to the present time, it is well to give a brief synopsis of Freidrich's original case. A carpenter fifty years old was confined to the hospital suffering from pulmonary tuberculosis. During his stay there he developed symptoms which attracted the attention of Freidrich. The biceps and triceps of both arms and the supinator longus of the forearms, the vastus externus and internus, the rectus femoris, abductors, biceps, semi-tendinosus, and rarely individual muscles of the back or face were the seat of rapid, lightning-like bilateral clonic contractions, as a rule producing no movement of the part, unrhythmical, symmetrical but not syncronous. These contractions affected individual muscles or parts of muscles, rarely muscle groups; were fibrillary, fascicular or involved the entire muscle. They were so sudden and rapid as to resemble the contractions caused by electrical stimulation, they were strongest and most frequent when the patient lay in bed, ceased entirely in sleep and disappeared on active voluntary movement. Electrical and mechanical irritability of nerves and muscles was unaffected. There were increased patellar reflexes, all the symptoms were more marked on the right side, the pupils were normal and there were no vasomotor or secretory or mental symptoms nor disturbances of sensation. These symptoms were attributed by the patient to a fright experienced by him fourteen days before the spasm began.

During the next ten years, forty-eight cases were reported in the literature. Of these forty-eight cases, six only are genuine cases of Myoclonus, the rest of them being manifestations of Hysteria or of Tic Convulsif. In 1891 Unverricht published a monograph on Myoclonus describing a number of cases of the disorder. These cases, however, differ essentially from those described by Freidrich ten years before. Since Unverricht's description, the disease he describes has been called Myoclonus epilepticus. The next ten or fifteen years is a period of confusion in the diagnosis and classification of the myoclonias, Hysteria and Tic still claiming their share of the reported cases. Paramyoclonus multiplex was called Myoclonus and Freidrich's disease, and the name Freidrich's disease already had been given to a form of family ataxia. This but added to the confusion. It is only of late years that we are gaining a clearer conception of these various related clinical complexes. In 1903 Dana attempted a classification but included altogether too much under the term myoclonus. He divides all cases of myoclonus into four subdivisions.

I. Myoclonus of spinal or peripheral type, or myokymia. Friedrich's Paramyoclonus multiplex.

II. Myoclonus of functional and hysterical type.

III. Myoclonus of convulsive tic type.

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*Read before the Milwaukee Medical Society, March 3, 1917.

IV. Myoclonus of degenerative chorea and epilepsy, Myoclonus epilepticus of Unverricht. Dana's second and third groups contain cases of Hysteria and convulsive Tic which are not true Myoclonus. The term Myoclonus should be applied only to cases of Paramyoclonus multiplex of Freidrich and Myoclonus epilepticus of Unverricht.

PARAMYOCLONUS MULTIPLEX.

Etiology: Paramyoclonus multiplex is a very rare disease, one hundred cases having been reported in medical literature up to 1905, most of them being cases of Hysteria or Tic Convulsif. The cause is unknown, many of the cases being preceded by fright or trauma. We do know that it develops upon a basis of neuropathy from which other degenerative disorders may at the same time arise. It sometimes begins in childhood but is more common in mid-life. Men are much more often affected than women.

Symptoms: The symptoms are entirely and purely muscular, the muscles being the seat of clonic convulsions which cause lightning-like contractions of the affected muscles. The spasms affect individual muscles and are always bilateral. They are unrhythmical, symmetrical but not usually syncronous. No locomotor effect is produced except as the result of unusualy severe contractions. The spasms appear at definite intervals of a few hours or days and last ten minutes or more at a time. Although any muscle of the body may be affected except the extra-ocular muscles, those more usually involved are muscles of the trunk and of the proximal portions of the extremities. The biceps and triceps, the supinator longus, quadriceps femoris, and the semi-tendinosus are frequently affected. Muscles which cannot be contracted separately by the force of will, as the supinator longus, are in many cases involved. The muscles of the hands and feet, and legs and forearms in many cases escape but are sometimes involved. During the interval between convulsions the muscles may be at rest or may be the seat of fibrillary or fascicular twitchings. The contractions may or may not disappear during sleep, may or may not be painful and usually are decreased during voluntary muscular effort. Lying in bed in a horizontal position increases the duration and severity of the attacks and tapping of the tendons or excitation of the overlying skin will usually bring on an attack. There is no change in the electrical excitability of the muscles. There is no loss of consciousness, no sensory disturbances and no mental symptoms. Speech may be affected, may be difficult and explosive because of the involvement of the diaphragmatic and laryngeal muscles. Patellar reflexes are exaggerated and M. Allen Starr reports one case in which occurred bilateral ankle clonus.

Pathology: There has been but little work done on the pathology of Paramyoclonus multiplex. Schultze in an exhaustive examination of Freidrich's original case reported negative findings. The histological examination of one of Hunt's cases showed no pathological change in any of the nervous structures of the brain and spinal cord. E. M. Williams of Sioux City, Iowa, reported necropsy findings in 1914. Lymphocytic infiltration of the meninges over the para-central convolutions and extensive infiltration of red cells and lymphocytes in the pia of the cord was present. In Hunt's cases there was a simple hypertrophy of the affected muscles. Freidrich explained the symptoms as due to an excessive irritability of the anterior horn cells of the cord, with which theory most investigators agree. According to the later views of cortical representation this is certainly what we should expect. Coordinated muscular movements, group movements of muscles acting in unison are represented in the brain cortex rather than movements of individual muscles which have their representation in the anterior horn cells of the cord.

Diagnosis: If Freidrich's original description be kept in mind and the symptoms therein described be regarded as the essential characteristic feature of the disease, no great difficulty will be encountered in the diagnosis of this disorder. The case must present the following symptom complex in order to be regarded as a genuine case of Paramyoclonus multiplex. Individual muscles must be affected bilaterally not necessarily syncronously, producing an extremely rapid clonic contraction of the affected muscles but causing usually no locomotor effect. The movement is not volitional, is incoordinate, varies in intensity and duration and is affected by external influences. Occasionally these spasms may become so rapidly repeated that they become tetanic in character and a tonic spasm results.

The diagnosis from Convulsive Tic is not difficult. The face is usually affected severely and

many times exclusively. The spasms are frequently unilateral. Their intensity does not vary and they are affected but slightly by external influences.

Certain motor phenomena occurring in Hysteria may simulate quite closely Myoclonus but in the former disease the movements are more likely to be coordinate, can sometimes be brought on by suggestion and other stigmata of Hysteria are present. However, many writers upon this subject consider Paramyoclonus multiplex as merely a form of Hysteria.

Prognosis: The prognosis of Paramyoclonus multiplex is guardedly favorable. The symptoms in Freidrich's original case disappeared after galvanization of the spine. This same treatment has been successful in some of the later cases but in many there have been a recurrence of the symptoms.

Treatment: Nearly all of the spinal cord and cerebral sedatives have been used at one time or another, usually with little or no benefit. The most efficient treatment seems to be the application of a strong galvanic current to the spine and neck and the use of atropin hypodermically.

M. P., a laborer, 32 years old, native of Austria, applied to the North Side Dispensary for treatment. Five years before, he was injured by having a heavy shaft fall across his chest causing unconsciousness for about five minutes. He was taken to a hospital where he remained for two weeks. Shortly after the injury he complained of severe pain in his chest which has been present ever since. This symptom, however, occurred during the two or three years previous to the injury but was not so severe. For the past two or three years, he has had a cough particularly in the morning with some expectoration. About nine months after the injury, the patient noticed for the first time, a twitching and shaking of the muscles appearing first in the right leg followed in a few days by the right arm. The muscles of the left side of the body were involved at about the same time but not so severely. He has been unable to work since the injury because of the muscular contractions. His appetite is good and in all other respects he is healthy.

The patient states that he has never had any sickness before and the only injury is one to the head when he was a small child. He denies venereal disease. He has been a moderate beer drinker all his life, and does not smoke.

Father died at the age of 67, of old age, mother living and well at 70. Three brothers living and well, three brothers dead of tuberculosis. One sister dead in childhood, cause unknown. There is no history of nervous or mental disease in the family.

The man is a short, strongly muscled Austrian laborer with a rather stupid expression of countenance and low sloping forehead. His head is well covered with coarse dark hair and there are two scars on the crown of the head, each about one inch in length, the result of an injury received in childhood. There is no ptosis nor extraocular paralysis. There is pseudonystagmus of both eyes on extreme lateral deviation. The pupils are very nearly equal in size, the right being very slightly larger than the left. Their outline is regular, they react promptly to light and accommodation, but the reaction to light causes a hippus in each eye. There is no facial paralysis nor sensory disturbance in the area of inervation of the 5th nerve. Hearing is considerably impaired in the right ear, watch tick is heard at the distance of 3½ feet with left and at the distance of 10 inches with the right ear. The teeth are in very poor condition; pyrrhoea alveolaris is present.

There is no deviation or atrophy of the tongue, but there is a slight coarse tremor. There is no muscular atrophy nor weakness, nor rigidity of any of the muscles of the body. The triceps reflex is present on both sides but much stronger on the right. The radial reflexes are present and apparently equal, both patellar reflexes are present but the right is much stronger than the left. The Achilles reflex is present on both sides and apparently equal. There is no Babinski, Oppenheim, Gordon or Chaddock present on either side. The abdominal reflexes are brisk and equal but the cremasteric reflex is absent on both sides. Sensation is unimpaired and the sphincters functionate normally. Speech is unaffected. There is no difficulty in swallowing and mentality is unimpaired.

The muscles of the trunk and of the proximal portions of the extremities and certain muscles of the face are the seat of rhythmical, rapid clonic contractions, which usually, but not always, cause movements of the part affected. Individual muscles and muscle groups are the seat of these contractions in the trunk and in the extremities, and these are usually bilateral although the right side is affected much more strongly than the left. The

movements on the two sides of the body are not syncronous. These muscular contractions appear at intervals of a few minutes or so and last from three to fifteen minutes. At times the muscular contractions are very severe causing a shaking of the bed upon which the patient lies, or, if standing, making it almost impossible for him to keep the erect position. Fine, rapid, fascicular muscular twitchings are noticed almost constantly in the right masseter muscle and the temporals. The muscles particularly involved are the biceps, triceps, supinator longus, quadriceps femoris, and the ham-string muscles. The muscles of the hands and feet escape. These contractions disappear during sleep, are quite painful, especially so when severe, and are markedly decreased during voluntary muscular effort.

While sitting quietly in a chair, the muscles are at rest and none of the contractions can be seen except the fine fascicular twitchings in the face. Soon, however, as the patient stands, the entire body is thrown into severe muscular convulsions which threaten to throw the patient to the floor. During the severity of the attack, the muscles of respiration become involved and it is difficult for him to breathe, the lips become cyanosed, and there is marked difficulty of inspiration. Lying down in a horizontal position will bring on a severe attack almost instantly.

MYOCLONUS EPILEPTICUS.

Etiology: Myoclonus epilepticus is an exceedingly rare disease, only fifty-seven cases having been published up to 1903, only four of these in the English language. The first description of the disease occurred in a novel published in Paris in 1873. The description of one of the characters in the story is a portrayal of the symptoms as we find them in this disease. The first careful description of the disease as a clinical entity was given us by Unverricht in his monograph published in 1891, in which he describes a number of typical familial forms of myoclonus. An heredity predisposition is frequently noted, many times a direct heredity from parent to child. One-fourth of the cases reported have been sporadic and in these, as well as in the heredity forms, a grave degenerative, constitutional fault is practically always present from which degenerative basis other neuroses may arise and be associated with myoclonus, such as essential epilepsy, the tics, paralysis agitans, alcoholism, insanity, and chorea. Various stigmata of degeneration are usually present. The disease practically always begins in childhood or youth and runs either an acute or chronic course. Males are more frequently affected than females. As direct excitants, trauma and fright are given first place. Autointoxication has been thought to have caused the disease by the action of the toxins on the degenerated cortical cells.

Symptoms: The muscular contractions which form the entire symptomatology of Paramyoclonus multiplex still dominate the clinical picture in this disease but in addition other symptoms appear as well. The disease first manifests itself through attacks of nocturnal epilepsy, so-called at least, which may be either grand mal in type or petit mal. One-half of the cases begin with these epileptiform nocturnal convulsions, one-third begin with myoclonic convulsions and in the remainder the onset of the two occurs simultaneously. The epileptiform convulsions are always nocturnal at first but may later in the disease become diurnal. They may continue throughout life, or disappear completely after a few years. They are not typical epileptic attacks, no aura exists, tongue biting is infrequent and post-epileptic coma is absent. Status epilepticus never occurs; incontinence of urine usually does not occur. A status myoclonus sometimes precedes death by a few days or weeks. In many cases, consciousness is only partially lost or impaired to some extent during the epileptiform seizures. The myoclonic contractions appear a few months or years after the epileptiform convulsions begin. A child who has been having nocturnal convulsions for years will begin to show clonic and tonic muscular contractions during the day which gradually increase in severity. These contractions are not usually the rapid lightning-like contractions of Paramyoclonus multiplex but are more choreiform in nature. The muscular contractions may be fibrillar, may involve portions of muscles causing tremors or involve muscle groups, causing marked locomotor effect. The trunk muscles are often affected causing jerky movements laterally or antero-posteriorly. The muscles of the face and muscles of the distal portions of the extremities are commonly involved. Both sides are usually affected but the movements are not syncronous. The usual order of muscles involved is as follows: Muscles of the upper extremity, lower extremity, chest, abdomen, neck and face in their order of frequency. Differing from Paramyoclonus multiplex, the ton-

gue and diaphragm, and also the pharyngeal muscles are rather frequently involved causing difficulty in swallowing, stumbling explosive speech, and a grunting expiration. The salivation which sometimes occurs in this disease may be due to the difficulty in swallowing the saliva rather than to any real increase in the secretion of it. After the patient has been confined to bed for some time, there develops a certain degree of muscular atrophy from disuse. Both skin and deep reflexes are practically always exaggerated. No changes in the special senses, no impairment of sensibility, no electrical changes have been found. There is always a lack of both physical and mental development varying from feeble mindedness to idiocy and dementia. Gastro-intestinal symptoms are common, loss of appetite, poor digestion of food, vomiting, and intestinal sluggishness. Albuminuria and indicanuria have been found frequently. In the terminal stages of the disease hallucinations and delusions are rather common as are also states of mental exhaltation and depression. Rarely single general tonic contractions may constitute the entire clinical picture. The strength, duration and frequency of these muscular contractions vary from day to day, somedays being almost entirely free from any convulsions, other days being very bad. It is rare for the child to be entirely free from any evidences of myoclonus. The myoclonus becomes progressively more and more persistent during the waking hours frequently terminating in status myoclonus and death from exhaustion.

Pathology: L. Pierce Clark of New York thinks that this disease is due to an essential defect in the cortical control over muscle tone and an undue responsiveness to stimuli probably a result of some metabolic defect, usually congenital. Hunt considers the two essential features to be due to lesions in different portions of the cerebro-spinal axis, the epilepsy referable to the upper neuron and the myoclonus referable to the lower neuron.

Unverricht believed the anterior horn cells to be the seat of excitation but that the cortex also was involved. There have been seven autopsies made on this disease, the only two of any importance being made by Clark and Prout. They found evidences of a mild meningitis with round cell infiltration around the vessels of the pia, destruction of the pyramidal cells of the third cortical layer and a destruction of the intra-nuclear network of the second layer with a replacement by granular substance and an extreme chromatolysis of the entire cortex.

Diagnosis: This disease is not easy to recognize at first sight and it is only after repeated examinations that we are able to arrive at the correct diagnosis. The differential diagnosis narrows itself down to a consideration of Hysteria, Epilepsy with pseudomyoclonic contractions, and post-hemiplegic choreic movements. In Hysteria we have the patient's general mental make-up to guide us, the presence of the hysterical stigmata, consciousness is not lost in Hysteria, tongue biting is not present, nor do we have irresponsive dilated pupils during the convulsive attack. The diagnosis from atypical forms of Epilepsy is not so easy. Myoclonic movements in Epilepsy occur but rarely. Shanahan mentions the occurrence of myoclonic movements in only seven of the 2,150 cases of Epilepsy he observed and Alden Turner refers to only two cases among 2,000 epileptics. In both of these the Myoclonus antidated by several years the epileptic seizures. The muscular contractions occurring many times as an aura of Epilepsy are attended by impairment of consciousness. They are never multiple, they affect the arms only, in a great majority of cases and are bilateral and syncronous. The movements affecting one-half of the body after hemiplegia, are rhythmical and confined to that half of the body which was once paralyzed.

Prognosis: The prognosis of these cases is invariably bad. No cures are on record although long remissions occur. Patients usually die in early adult life of a sort of premature senility and usually are completely sterile.

Treatment: Surgery is contra-indicated. It invariably is followed by bad results. All cerebral sedatives have been used with variable results. Anti-streptococcus serum has been used with no improvement. Galvanization is of little or no use. Rabot used 10 cc. of tetanus antitoxin which was followed by a cessation of both Myoclonus and Epilepsy for forty-three days.

A. R., a girl aged seven years, the fourth of five children, was sent to me December 6, 1915, for examination and diagnosis. The child was born of Russian parentage in this city. The father is fifty years old, well, of normal mentality, and has no nervous disorder of any description. The mother is forty-five years old, is a typical solid phlegmatic Russian peasant, entirely well. There are five other children, four older than the patient and one

younger. These children are all well and have more than the average intelligence of children in their surroundings. There is no history of any nervous or mental disease, nor any debilitating disease in any branch of the family.

The birth was normal, labor four or five hours in duration, no instruments were used, but the mother thinks the child was slightly asphyxiated at birth. The girl developed normally in every way and was entirely well until she was three and one-half years old, with the exception of some form of skin eruption at the age of two and one-half years, which disappeared without treatment.

One week after being rather severely frightened by a cat, a convulsive attack epileptiform in nature, occurred about six o'clock in the afternoon. She had two more that night and practically every night after this she had from one to ten epileptiform attacks. On two or three occasions only, have these attacks occurred during the day-time. The nocturnal convulsions last less than a minute and are marked by rapid clonic contractions involving practically all of the muscles of the body, the flexors acting more strongly than the extensors cause flexion of the thighs on the trunk and the legs on the thighs, flexion of the forearms upon the arms, and the body is bent forward until the position of the fetus-in-utero is assumed. The extra-ocular muscles are involved causing a rolling upward of the eye-balls. The rapid clonic muscular contractions pass almost instantly into a tonic contraction which also disappears very rapidly, the entire attack lasting a minute or less. There is no difference on the two sides of the body.

Involuntary urination during the attack never occurred until seven months ago; since that time it has constantly been a symptom of the nocturnal convulsions. This condition remained unchanged until eight months before the first examination. From the time the nocturnal attacks began, they persisted with varying intensity and frequency, occurring every night. This was the entire clinical picture during the next two or three years. The child developed normally, physically, and mentally, attended school, learned well and appeared to be normal in every way except for the convulsions at night. Eight months ago, however, the picture changed. While before she was perfectly well and in every way normal during the daytime, she now begins to present the myoclonic muscular contractions so characteristic of this disease. Clonic movements of the muscles of the extremities, and at times of the trunk began and have increased in severity since that time. Three or four months before the first examination, the speech became affected causing a marked peculiar dysarthria, and at the same time swallowing became difficult.

About a month after these symptoms appeared, marked salivation occurred and has persisted up until the present time. The mental picture keeps pace with the increasing severity of the physical disturbance and mentality is now considerably impaired. There is only one instance in the history of this case of hallucinations. The child's brother says that about the time of the beginning of the myoclonus, the child was in terror because of a large snake which she says was wound around her. This hallucination lasted only a short time and is an isolated symptom. Her appetite is very poor and the bowels sluggish and irregular.

Examination December 6, 1915. There is no ptosis, extra-ocular paralysis nor nystagmus. Vision is normal by rough tests. There is no evidence of any disease or abnormality of the fundus on ophthalmoscopic examination. The pupils are equal, regular, moderately contracted and react promptly to light and accommodation. There are no abnormalities of the external ear nor any defects in hearing.

There is rather a stupid expression of the face which is large and rather coarse, with heavy cheeks. There is no evidence of facial paralysis and there is no sensory disturbance in the area inervated by the fifth nerve. There is a high-arched palate, the pharyngeal reflex is present. There is nothing suggestive in any way about the teeth. There is no deviation, tremor, nor atrophy of the tongue. The speech is slow and at times rather indistinct. The heart and lungs are normal, and there is no sphincter disturbance. There is no muscular atrophy anywhere nor any noticeable weakness of the muscles, and no muscular rigidity. The muscles of the upper and lower extremities especially the muscles of the hands and to a less extent, the feet, are the seat of irregular, rather rapid contractions in all cases causing motions of the part affected, which although not typically choreic, resemble them. A tonic contraction lasting from a few minutes to a number of hours, at times takes the place of the clonic contractions of the fingers, causing a tightly clenched fist on one or both sides, suggesting the hand sometimes seen in tetany.

Both sides of the body are affected but the movements are not syncronous. These contractions always involve either separate muscles or muscle groups and are never fibrillary nor fascicular in character. They are more severe in the hands and the forearms but affect also the upper arms and lower extremities, and less often the trunk muscles causing lateral and antero-posterior movements of the trunk. The muscles of the face are not involved.

Arm reflexes at this time are not obtainable. Patellar reflexes are exaggerated and equal. The Achilles reflexes are present and equal. There is no Babinski, Oppenheim, Gordon, nor Chaddock. Sensation is slightly impaired, there being a very slight analgesia of both forearms and hands. The child understands everything said to her, answers questions intelligently sometimes, but again there is a very noticeable impairment of the mental processes. Reaction time is slow and she makes not a few senseless statements. The electrical excitability of the muscles is slightly increased, as is also the mechanical excitability. A Chovstek sign is present, tapping over the seventh nerve causes a rapid elevation of the upper lip.

Present condition March 4th, 1916. The condition of the child at this time is in most respects the same as at the last examination except that the severity and frequency of the myoclonic contractions have increased. There is constant drooling of saliva, a symptom which appeared about the middle of January and has been constant ever since, somedays, however, it is worse than on others. At this time in addition to the muscles involved before, some of the small muscles around the mouth are now the seat of rapid clonic contractions. There appears to be some muscular spasticity of the muscles of the hands and forearms, more marked in the right hand than in the left. All attempts at restraining the muscular contractions are involuntarily resisted. Rest and lying down in a horizontal position, increases the myoclonus and involuntary effort decreases it. It is to some extent also under the control of the will. When left to herself, the child never walks but always runs from one part of the house to the other, and does not sit still for any more than a minute or so. The patellar reflexes are apparently decreased especially the right. There is no rigidity of the lower limbs, no Babinski nor Chaddock.

During the week preceding this examination, the child was confined to her bed with the muscles of the extremities in a state of clonic contraction. When she attempted to walk she would fall to the floor and she was unable to talk or swallow all week, evidently a condition of status myoclonus.

It takes her five minutes to drink a small glass of milk and she is unable to hold anything in her hands, the muscular contractions loosening the grip, and the object falls to the floor. The sensory changes in the arms are still present and unchanged. There is a more noticeable mental defect than at the first examination, and speech now is almost unintelligible. It is the slow, mumbling, poorly pronounced, inarticulate speech of a child just learning to talk.

Nocturnal epileptiform attacks have continued uninterrupted since the date of the first examination. The epileptiform convulsions have persisted unchanged in spite of the administration of large doses of bromides and a fair trial of the opium treatment for epilepsy. No sedatives or combination of sedatives seems able to stop the nocturnal attacks. Because of the resemblance of the tonic muscular contractions to those occurring in tetany, the child was put upon dried parathyroids (P. D. & Co.), one tablet three times a day, and calcium lactate 10 grains three times a day. After two weeks of this treatment, the tetanic muscular contractions entirely disappeared and the myoclonus was greatly improved. She remained on this treatment until the 10th of February when it was discontinued by the parents because the nocturnal attacks were unaffected. In one week after the child had been taken off calcium lactate, the clonic and tonic muscular contractions appeared again, worse than they were before the treatment was begun.

The history of this case suggests many points of interest to the investigator. We do not know the cause of either one of the myoclonias. The relation, if any, borne by them to disturbances of the glands of internal secretion is not known.

Does parathyroid insufficiency play an important part in their causation and what is the role of calcium salts in the spasmophilic diatheses? Are the nocturnal epileptiform convulsions merely an explosion of the myoclonic tendency which is present in the individual occurring under the inhibition of sleep, and what is the relation, if any, of myoclonus to essential epilepsy if indeed there be such an entity?

SOME OBSERVATIONS UPON ECTOPIC PREGNANCY, BASED UPON THIRTY-SEVEN CASES TREATED BY OPERATION.*

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In a practice consisting largely of abdominal and gynecologic surgery I have operated upon a total of thirty-seven cases of ectopic pregnancy, none of which have been previously reported. This paper is intended to summarize the salient features of the cases in this series, and to record a few personal opinions and observations thereon.

In a technical sense this is not a report of cases at all, because I am unable to tabulate them all and give full particulars about the history of each patient. The records in some of the earlier cases especially are very incomplete. As extenuating circumstances it may be stated that the operations were strung out over a great many years, and that many of them were done in the patients' homes, where the first consideration was to act quickly and save the patient. Such conditions are, of course, not conducive to careful history taking, to say nothing of making leucocyte counts, blood pressure and other tests. I must beg this Society, therefore, to accept this report in a not too critical spirit as a conscientious effort to draw some useful inferences from admittedly imperfect data.

Although this is a small number of patients for statistical purposes, yet in some respects a relatively small series like this, occurring in the experience of one operator, is better for purposes of study than a much larger series collected from miscellaneous sources.

Twelve of these patients came to operation within the past two years, while the others were scattered over the preceding 11 years.

Age and Social Status. The average age of 26 of the patients was 28 years. The youngest was 23, the oldest 41. Thirty-four patients of the whole series were married, 2 were single, and 1 of them, who was the mother of two children, had been a widow for fifteen months preceding the operation.

Venereal History. No Wassermann tests were made in any of the cases. I cannot recall any definite history of gonorrhea in any one of the patients, and my records show none. Too much importance should not be attached to this statement, for it is well known that women often have gonorrhea without knowing it. In at least seven of the cases the free end of the opposite tube was found to be sealed up. Two had had the opposite tube removed at previous operations.

Previous and Subsequent Pregnancies. Only 10 of the women had borne one or more children. Just how many had had abortions I cannot state, but can recall that several admitted having induced abortion in the first year of married life. At least five of the patients in the series have since borne one or more children. One of them has given birth to five children since the operation.

Menstrual Habit. All the patients except two gave a history of more or less regular menstruation up to the time of conception. These two patients were nursing babies from four to six months of age at the time the tubal pregnancy occurred; hence there was no history of missed periods to serve as a clue in the diagnosis.

Date of Last Pregnancy. Of the ten women who had previously borne one or more children, in six there had been a lapse of from four to twelve years since the last childbirth. This would suggest that there may have been present during these intervening years some mechanical or inflammatory impediment to impregnation, such as total or partial occlusion of the tubes.

Years of Married Life Prior to Ectopic. As previously stated more than two-thirds (27) of the women in this list had never borne children. I regret, however, that I cannot give the average number of years they had been married when this tubal pregnancy occurred. At least eighteen of them had lived a childless married life from three to eleven years before the ectopic occurred. Among this latter group it was the rule rather than the exception to learn that during the first year or two of married life they had used precautions against conception and in many instances had induced early abortion; that later, when the precautions against impregnation were relaxed, they found they were apparently sterile, till finally the ectopic occurred.

Mistreated Under Faulty Diagnosis. Nearly all of the patients had been seen by other physicians

*Read at the 70th Annual Meeting of the Wisconsin State Medical Society, Oct. 4-6, 1916.

before coming under my care. Five of them admitted that attempts had been made to induce abortion, either by some physician or midwife, under the impression that the pregnancy was intrauterine. It is interesting to note that nine had been curretted for the purpose of removing the remnants of a supposedly incomplete abortion, and thereby stopping the bleeding. I fell into this same error myself in two of the earlier cases. The confusion of ectopic pregnancy with incomplete abortion is undoubtedly the commonest error physicians make in dealing with those cases which are in the stage of uterine bleeding without acute internal hemorrhage. The history of missed periods, the severe pelvic and abdominal pain, the slightly softened and enlarged uterus, and the metrorrhagia, all contribute to make this diagnostic pitfall an easy one to tumble into.

Symptoms. Localized and severe pain and tenderness, with persistent uterine bleeding, coming on after missing a period were the most constant symptoms. In several of the cases it has been easy to make a probable diagnosis by telephone when the attending physician called up and related the above history, stating that the patient was a young married woman who had previously been perfectly regular in menstruation. In several instances the patient had not gone more than three or four days past the menstrual time when the pain and metrorrhagia began. In three cases no period was missed at all (see case 37). Unlike the backache and intermittent pains of abortion, the pains in these patients were usually very severe and recurring, lasting from ten minutes to one-half an hour at a time. Most of them had demanded and had been given an anodyne, commonly in the form of a hypodermic of morphine. The majority stated that the pain was greater on one or the other sides of the midline; that is to say, the pain was not symmetrically distributed. Extreme pallor and restlessness, air-hunger, thready or absent radial pulse, and partial collapse were present only in acute hemorrhagic cases, which constituted a little less than one-third of this series. Elevation of temperature, one or two degrees, has been the rule rather than the exception in those patients who had extensive internal hemorrhage, whether the hemorrhage was acute, or whether the process was quiescent and the blood coagulated. In some 20 cases where from one to two quarts of partially clotted blood were found in the pelvis and lower abdomen—the slow accumulation of days or weeks—it is noteworthy that there was neither any diminution in the volume of the pulse, nor a very profound pallor of the visible mucous surfaces. I recollect distinctly that this has been a matter of astonishment to the attending physician on several occasions. In many cases where the volume of blood clots in the pelvis has been considerable, there has been not only tenderness and rigidity of the lower abdomen, but also pain upon defecation, due, no doubt, to the immobilizing action of the haematocele upon the rectum and sigmoid. The acute attacks of hemorrhoids in a few of the cases can be similarly explained.

A history of nausea and vomiting was invariably elicited in those patients who had a large amount of abdominal hemorrhage; likewise in many who had but slight internal hemorrhage but intense pain. Frequent micturition was noticeable in several patients who had large quantities of blood clot. Just what proportion of them had sore breasts and morning nausea during the period of tubal gestation, the records fail to show, but I recall that a few of them gave such a history.

The metrorrhagia, which represents the shedding of the decidua vera from the uterine cavity, was practically never a continuous, uninterrupted flow in the patients I have observed. Many of them used some such expression as this: "I began flowing three weeks ago and have been flowing off and on ever since"—meaning that they had had only an occasional day or two of intermission in the flow. Nearly all of the women who had prolonged metrorrhagia stated that they had passed good sized clots at some time or other since the flow began. In many instances this led both patient and her physician to believe that an actual abortion had occurred. A recent case (Case 33) illustrates this point. The attending physician, who is a good diagnostician, began to relate the patient's history by saying, "She had an abortion three weeks ago, and has been flowing nearly all the time since: she has severe pains in her lower abdomen every day or two, and does not seem to be improving." He admitted that he had not seen the products of conception, but the patient and her mother were both so sure it was an abortion that he had accepted their verdict without hesitation. Operation half an hour later revealed a ruptured pregnant tube.

Permit me to digress to say a word about these blood clots. Clots of appreciable size rarely come

from the uterine cavity except in connection with parturition. When a woman lies flat on her back the vagina slants at an angle of approximately 45 degrees with the perpendicular. In this position the blood may easily accumulate and coagulate in the vault of the vagina, and then come away in a large moulded mass, giving rise to the popular delusion often shared by physicians, that these clots were formed in the uterus itself.

Pelvic Conditions Discovered at Operation. As a rule the uterus was slightly larger and softer than normal. These changes were not always pronounced enough to be of diagnostic aid. In case 29, for example, where the tubal abortion had occurred several months prior to the time of operation, the uterus had resumed its normal size and consistency. In those cases where the metrorrhagia had been prolonged, the uterus was reduced to nearly, if not quite, natural size, regardless of the age of the fetus. This I attribute to the desquamation, during the prolonged flow, of the decidua vera, which goes to make up most of the increase in bulk of the uterus in ectopic cases.

Single or multiple fibroids from hazel nut to hen egg size were palpated in the uterine wall in six cases. In two cases these fibroids were multiple.

No ovarian cyst larger than a hen's egg was encountered in any one of the whole series.

In the acute hemorrhagic cases no attempt was made to examine carefully the opposite tube. In at least eight of the quiescent cases the opposite tube was the seat of a chronic salpingitis which had sealed up the fimbriated end. Plastic operation to render the remaining tube patulous was attempted three times with uncertain result.

Partial or complete tubal abortion had taken place in at least nine patients; that is, the gestation sac and contents had been partially or wholly expelled through the free end of the tube.

There was no case of interstitial pregnancy in the list.

Twins were discovered only once (Case 29). Both were in the same gestation sac.

In two cases the fetus had attained at least three months' development and lay among the intestines at the end of a cord a foot in length. In three of the emergency cases in which rupture occurred early, the tube appeared normal except for a small punched-out hole near the uterine end, barely large enough to admit the head of a match. It was astonishing to see what profuse and rapid hemorrhages came from these small punctures.

Mortality and Morbidity. There were no deaths in this series and, so far as I have been able to learn, they are all living and well today. One patient, operated upon May 4, 1915, was in my office recently complaining of occasional pains suggestive of adhesions, but she is the only one that I can recall who has been troubled with such symptoms. This particular patient was not operated upon until three or four months after the rupture of the tube and death of the fetus, and she had a large amount of partially clotted blood in the abdomen and pelvis presumably during all this period.

Only exceptionally did any patient remain in bed longer than two weeks after operation. Several left the hospital at their own request in twelve days. Post-operative gas pains seemed in many cases to be more pronounced than in the ordinary clean laparotomy.

The entire absence of mortality, even among the patients who were pulseless, I attribute in part to the fact they were all young or middle aged women of good physique and, so far as heart, lungs, and kidneys were concerned, were good operative risks. There was not a fat woman among them.

In the tragic cases the operation was carried out as rapidly as possible, which may have had something to do with the favorable outcome. Though in ordinary surgical work speed is of secondary importance, in some ectopics and caesarian sections it may save life.

No salt solution was given intravenously during operation in a single case. The reason is simple. The critical cases were generally operated upon immediately in their homes where the facilities and skilled assistance for giving the solution intravenously were lacking. The other patients didn't need it. However, I have generally had a pint or two of warm salt solution poured from a pitcher into the abdomen just as the peritoneum was being closed. This requires no highly skilled help, and it always hits the spot where it will stimulate promptly.

Scoop out the clots and leave the unclotted blood, has been the rule followed. It seems foolish to pump salt solution into the patient's veins and then mop the peritoneum dry of something very much better than salt solution, namely, the unclotted portion of the blood.

Parenthetically it may be stated here that lapa-

rotomy sponges thoroughly soaked in blood and therefore not plainly visible, may be more easily overlooked in emergency operations for ectopic pregnancy than in almost any other form of abdominal surgery.

Drainage was used only once, which was once more than was necessary. This was done in a case where I had made a small stab in the posterior fornix of the vagina expecting to strike pus (this happened twice in the whole series); but the telltale spurt of partly clotted blood caused a quick change of diagnosis and the operation was completed *via* the supra pubic route.

No attempt was made in any case to resect the affected tube, and save a portion of it, though it has been my practice in the past few years to save the ovary on the affected side whenever practicable.

Diagnostic Points. If one looks for the classical symptoms of pain, hemorrhage, faintness, restlessness, vomiting, and collapse, naturally many cases will escape diagnosis. Fully a third of the patients in this series were referred to me by physicians who had never encountered an ectopic case before. At any rate they had not recognized one. The physician's diagnostic failure must be charitably viewed when we consider that not only the morbid anatomy, but the history and symptoms show enormous variations in ectopic cases. The commonest mistake, by far, is to treat the less acute ectopics as abortions. Perfectly plain and typical cases, too, are often overlooked, which would be recognized if the following simple rule were learned and remembered: When a woman of perfectly regular menstrual habit misses a period for a few days or longer, and then begins a flow which continues for an abnormal length of time, accompanied by recurring pelvic pains of a stabbing character and severe enough to require an anodyne, then there is strong presumptive evidence that she has a pregnant tube, and she should be investigated further with this idea in view; if she is childless after a married life of several years, the presumptive evidence is still stronger. In doubtful cases the whole picture—the expressive *tout ensemble* of the French—must be viewed in proper perspective. Finally, in early cases where little if any blood has escaped from the tube, the trained sense of touch in the tips of two fingers, such as comes only after a thousand vaginal examinations, will often, though not invariably, clear up a doubtful diagnosis.

Concerning the management of ectopic pregnancy much nonsense has been written. Three examples of it may profitably be referred to:

First, about ten years ago an eminent gynecologist came forward with the advice that operation be postponed in the acute hemorrhagic cases and the patient treated for shock until the acute symptoms subsided. The suggestion caused wide-spread discussion at the time but fortunately it has not been generally adopted.

Second, at one of the recent meetings of the A. M. A., a well-known gynecologist read a paper in which he suggested that it might be well, when removing a pregnant tube to remove the unaffected tube also, because in some cases which he reported, pregnancy had subsequently occurred in the other tube. In the discussion which followed, I stated that his plan was like that of a certain farmer, who cut down all the shade trees in his front yard because the lightning had struck one of them.

Third, quite recently, a prominent Philadelphia surgeon published a strong recommendation of the vaginal route to secure the bleeding point in the acute hemorrhagic, or as he calls them, the *tragic* cases. Without doubting that the procedure worked well in his hands, I feel certain that its general adoption would give him better reason for speaking of these cases as "tragic."

What proportion of women with ectopic pregnancy would die without operation? Of course, noboby knows, nor can know. My impression is that most medical students go out from our schools with the idea that these women would nearly all die without operation. Nothing could be farther from the truth in my opinion. Since most ectopic embryos expire in the first six weeks there is no good reason to doubt that the majority of the patients would survive, even though they might be invalids for a long time thereafter. But even if this were an established fact, it would constitute no valid argument against operating upon all of them.

Is ectopic pregnancy more common than formerly? And if so, why? Here again we are in the realm of speculation; but after making allowance for the great number of cases that formerly escaped recognition, I cannot escape the conviction that it is not only relatively but actually far more frequent than it was a few decades ago. The influence of venereal disease in this increase is doubtful. Attempts at birth control easily take first

rank, in my opinion, among the causes of tubal pregnancy. For not only do induced abortions produce impediments in the oviducts, but also the vaginal douche of too low temperature may produce a tubal congestion sufficient to hinder the ovum from passing into the uterus without preventing the spermotozoon from getting into the tube.

Brief notes upon four cases are hereto appended to illustrate certain points already alluded to in this paper.

Case 29. Mrs. M. L., Racine County, operated upon April 5, 1915. Patient has been a widow for the past fifteen months. She is a young woman twenty-six years of age, and the mother of two small children. Menstruation fairly regular till about six months ago. After missing one period for an uncertain length of time she began to have an irregular flow accompanied by acute pelvic pains. Has been more or less of an invalid ever since, with irregular menstruation. Examination shows a slightly tender mass in the cul de sac of firm consistency. Median incision. Uterus and tubes normal in appearance. The mass in the cul de sac proved to be an old, yellow, firm blood clot, the size and shape of a lemon. In the center of it was a gestation sac three cm. in diameter containing twin embryos.

Case 12. Mrs. W., Shawano County, referred by Dr. V., March 15, 1909, with diagnosis of sub-acute appendicitis of ten days duration. Patient is a young married woman, the mother of two children, and is now nursing a five months old baby. Pains began ten days ago in right lower quadrant of abdomen. Nausea but no vomiting. Examination showed tenderness and slight thickening of right adnexae. Operation revealed partial tubal abortion (tube).

The above case illustrates one of the difficulties of diagnosis in that there was no recent history of menstruation, due to lactation.

Case 37. Mrs. W. H., Milwaukee, age thirty-two, married three years, never pregnant. Menstruation began at fourteen, twenty-eight day type, duration four to five days. Regular period occurred August 5, 1916, the next period began September 3, 1916, exactly on time. Flowing continued up till date of operation (September 27, 1916). During these three weeks of flowing patient had been up and around except two days, when her pains were so severe that she was given a hypodermic of morphine. Examination showed slight thickening and tenderness in the left tube. Diagnosis, pregnant left tube. Operation showed a trace of free blood in the pelvis, and an enlargement 2x2x3 cm. in the middle of the tube.

The above case was one in which there was positively no missed period.

Case 21. Miss C., Waukesha County, age 40. *Deaf-mute* from childhood. Seen in consultation with Dr. W., May 15, 1912. Missed one period, three and one-half weeks ago. Severe pains in pelvis the past two days. Temperature 100 to 101. Had been given morphine for pain. Diffuse abdominal tenderness and considerable rigidity. Pulse full and regular. Vomited twice in past two days. Knees drawn up. Abdominal tenderness greatest in left lower quadrant, heart and lungs negative. Has been flowing occasionally during past two weeks.

Examination shows tender cervix slightly softened. Position and size of uterus and appendages uncertain on account of extreme tenderness. Diagnosis of ectopic pregnancy indignantly denied by patient. Operation two hours later showed three months' foetus lying among intestines with approximately two quarts of clotted and unclotted blood.

Some of the answers given by this patient were certainly untruthful and misleading. Here was a woman who had no right to be pregnant at all, and, being a deaf-mute she could be communicated with by me only by written questions and answers. Diagnosis in this case was made quite as much by exclusion as by the history.

DISCUSSION.

Dr. Thomas W. Tormey, Madison, Wis.: In his excellent paper, Dr. Echols has covered the subject very thoroughly and leaves little to discuss adversely. However, these anomalies of pregnancy will continue to occur, and the repetition of some of the facts stated by him will not be amiss.

First, as to Frequency: Spaulding in his interesting analysis of some 33.000 cases, such as would come to the general practitioner, reports there were among these, 1,704 pregnancies. Of these 13 were ectopics, or one for each 131 pregnant women. Further, and what is of considerable interest, he found that 86 of the 1.704 or 5.33% were sent to the hospital because of bleeding and were curetted, while a further study of the curettement showed the surprisingly high total of 13 or nearly 17% of possible abortions, were flowing because they were suffering from misplaced pregnancy.

As to the Etiology: We must consider inflammatory conditions of the tubes, mechanical factors and developmental defects, and while not always obtainable in the history statistics, show that 50% or more will give evidence of previous pelvic inflammation, or at least an obstetrical history that is suspicious in this respect. Furthermore, some of the authorities claim that the much abused gonococcus plays but a minor role, while abortion which so frequently is followed by salpingitis of a varying grade is more apt to be the major predisposing cause for this type of pregnancy.

As to the Symptoms: These cases are not always accompanied by a classical group of symptoms, and most of them are not seen by the physician until rupture has occurred, though were the subject given the publicity attained in the lay press by Twilight Sleep, carcinoma and tuberculosis, many would no doubt seek the services of the physician as soon as any deviation from the beaten path of normal pregnancy was observed.

The menstrual history is all-important; let us emphasize that amenorrhea is not absolutely essential to a

diagnosis, as it may be absent in 10% of the cases. Usually, however, we have a relative period of sterility followed by irregularity in menstruation; perhaps a prolongation of the normal period, or perhaps a period on time or delayed, to be followed by an intermittent or continuous metrorrhagea. Pain coming with expansion of the tube at about the fifth week, varies from a slight pelvic disturbance to severe cramps on the affected side and general abdominal pain; though in analyzing an extensive series, I think perhaps 227 cases, E. B. Young reports that only 55% complained of abdominal pain, 44% had flowing with pain and but 28% had localized abdominal pain, which was invariably in the lower abdomen. In addition to these, we may look for the usual pregnant symptoms of the soft, slightly enlarged uterus, nausea, etc. Repeating our statement that the majority of cases are not seen until rupture occurs, we find ourselves dealing with a major emergency. Seventy to 80% of which cases treated by expectancy will die, while 85% will recover through operative measure, and though an exact diagnosis is not possible at the time, we have unmistakable indications for interference, and after all, that is the important thing.

The patient has a sudden attack of pain, shock from peritoneal tear and possible vomiting, with the added symptoms of a progressive internal hemorrhage, when if seen early and in the proper environment, an immediate laboratomy with ligation of the ruptured vessel is indicated, and we must admit that late operation in these cases is apt to be followed by tedious recovery and partial invalidism, as a result of septic conditions, adhesions and inflammation incidental to infection or organized blood clots. On the other hand, if it is some hours before operation or proper facilities can be secured, keep your patient absolutely quiet. A little morphine to allay the pain and excitement, elevate the foot of the bed, but above all, do not attempt to raise the blood pressure through the use of strychnine or alcohol or intravenous saline, for we already have an open vessel, and not until that is under control, are we justified in attempting any measure which would raise the pressure and thereby add to the gravity of the situation.

Dr. A. J. Puls, Milwaukee: This is a subject that interests me very much. I think I was probably one of the first to read a paper on this subject 26 or 28 years ago here at Madison, and since that time thousands of cases have been reported. They are all more or less alike.

Extra-uterine gestation is a complication which the general practitioner meets with occasionally at the bedside; he may see a second case in the same week, and then again for a year he may not see another case. Unless he is well versed with its symptoms, he will mistake ectopic gestation for an attack of appendicitis, salpingitis, endometritis or even cholecystitis, renal or ureteral calculus. On the whole, we may state that this affection can be found during sexual life in women who have had no signs of pelvic disease, as well as in those who have suffered from pelvic disorders or local peritonitis. There seem to me to be three symptoms always present, or to follow closely upon one another, in every case of ectopic gestation.

1st. Irregularity of the menstrual discharges.

2nd. Pelvic pain, unusual to the patient.

3rd. Tumor formation within the pelvic cavity.

The menses having been missed for one or more periods, then accompanied by pain, varying in degree, a bloody flow makes its appearance, resembling menorrhagia. The patient heretofore has been free from menstrual pain.

The pelvic pain is mostly on one side of the lower quadrant, it reaches its height on rupture of the Fallopian tube. On bimanual examination an enlargement of the tube can be early outlined; the tumor increases in size daily and on rupture gives way to a boggy mass, filling Douglas' pouch. This may remain encapsulated within the broad ligament, and may become absorbed or become infected and form a pelvic abscess and then may find its outlet through the neighboring organs, unless drained artificially through the vagina by the surgeon. Rarely does rupture take place into the free abdominal cavity and cause collapse or sudden death. Nature as a rule provides a protective barrier and walls off the bleeding surfaces by adhesions of the omentum and the peritoneum of the broad ligament. There quickly follows local inflammation within and around the tube as soon as the ovum has imbedded itself in the tube. The cause of the pain is easily understood when we consider that the impregnated ovum implants itself within the lumen of the tube and the chorionic villi bury through the mucous membrane and the walls of the narrow canal. The growing fertilized ovum acts like a malignant neoplasm and in the course of its growth perforates the walls; this process is always associated with pain and hemorrhage. At the same time a decidua forms within the uterine cavity and in a short time separation takes place, resulting in menorrhagia, as soon as the process of perforation is noticeable in the Fallopian tube.

Treatment at first should be bed rest and an icebag applied to the lower abdomen. If you are fortunate to convince the patient of her impending troubles, resection of the affected tube is not only justifiable but mandatory. It was my good fortune to operate on a young woman and resect a tube which held a two weeks old fertile ovum. The specimen was sent to Dean Bardeen for examination. One year later the same patient was delivered of a healthy child at full term, the period of gestation throughout was normal.

To patients averse to surgical interference the expectant treatment offers good results and resolution of the pelvic broken down tissue and absorption of the hematocele is not unknown in numerous cases of ectopic gestation. But the outcome is more frequently seen as abscess formation on account of the close contiguity of the sigmoid or rectum of the encysted ovum, and this calls for immediate posterior colpotomy and drainage. I recall three cases, however, where intra-uterine hemorrhage continued for days and weeks within the pelvis and abdomen. One patient was almost exsanguinated; I saved her by a speedy colpotomy; the other one by laparotomy. The third succumbed from the shock of the abdominal operation on the third day, but I believe today she might have been saved by a vaginal operation and,

instead of giving ether, making use of spinal analgesia or nitrous oxide anesthesia. The vaginal operation is preferable in advanced cases on account of its conservative treatment of the diseased uterine appendage.

All of these cases examined at any time between six weeks to six months after operation by the vaginal route showed absolutely no signs of adhesions within the pelvic cavity; the uterus was always found freely movable and the remaining tube and both ovaries normal in size and functionating regularly. Not a single case was in need of a second operation.

Dr. A. H. Levings, Milwaukee: I am very glad to have heard this most excellent paper of Dr. Echols, and I will confine my very brief discussion to the treatment, which I think has been very greatly improved during the last few years.

I recall some years ago in St. Paul, of having seen Dr. Howard Kelly do an operation for ectopic gestation. He said before the commencement of the operation that he was not absolutely sure about his diagnosis, and would not like to stake his reputation upon the diagnosis of ectopic gestation, and therefore he made a very free and very long abdominal incision, finding everything plastered over by adhesions—that is, the pelvic cavity. Being convinced that it was a case of ectopic gestation, he put a large swab into the abdomen, without closing it, in case he should encounter severe hemorrhage, and opened Douglas' cul de sac, curetted out the clot, put in a drain, and went back and closed his abdominal incision. After he was through, that great operator, Dr. Joseph Price, stated, and I believe absolutely correctly, that Dr. Kelly had done two incomplete operations instead of one complete operation.

I followed this plan of operating for some years, and found that there was always a stormy convalescence and an imperfect recovery. Then it was discarded.

Then the plan of drainage. I followed this plan for some years, but, as Dr. Echols has truly stated, I think drainage only does harm in these cases. You want to preserve that blood serum which is readily absorbed and fills the depleted vessels of the patient.

There is one point which I think perhaps has not been sufficiently brought out, or at least its consideration may be somewhat extended. There has been, as Dr. Echols says, a good deal of discussion regarding primary operations, or immediate and secondary operations. Where there is hemorrhage in the abdomen, or hemorrhage anywhere in the body, I believe it is a cardinal principle, and it is a true surgical procedure, to arrest that hemorrhage at the earliest possible moment. It has been stated here that the primary hemorrhage is seldom fatal. Perhaps not. Some say, wait until the patient reacts. I have been unfortunate enough to wait in two instances for a reaction and recovery from hemorrhage, and lost both patients, and those are the only ones I have lost. I believe that primary hemorrhage is often very severe, and, contrary to what Dr. Puls says, I think that hemorrhage in the great majority of instances—in nearly every instance when the tube is not or has not been surrounded by adhesions—is continuous, and if you wait, your patient is growing worse from hour to hour and from day to day. It is very seldom—I have never seen an instance yet—where the primary hemorrhage was sufficient to make an immediate operation extra hazardous. The operation can be quickly carried out. After the tube is double ligated and removed, the large clots are removed, and then the abdomen closed, and your patient usually makes an uneventful recovery.

Dr. R. G. Sayle, Milwaukee: Mr. President, and Gentlemen. This is another subject about which I have very strong convictions, and it is a subject that comes up in the differential diagnosis of acute appendicitis.

I have an objection to make, in a diagnostic way. As I understood Dr. Echols he advocated examination by educated finger, to detect a tubal mass. I strongly object to bimanual examination in suspected tubal pregnancy, unless you may have the patient in the hospital, where you can be with her very soon. It does not take much to rupture and start the new hemorrhage. Usually, when we see tubal pregnancy cases, it is because of there having been a hemorrhage and an abdominal pain. It is not the rule that we are called to see the first trivial initial pains that may come from uterine contraction. I submitted a patient of mine to a bimanual examination by an assistant just prior to operation, and I had a most alarming hemorrhage a few minutes after in the belly when I had it opened. I am sure he had disturbed the clot which was temporarily taking care of the hemorrhage.

Another point in diagnosis. I have had an experience of 43 cases, and it all came in a bunch, or at least a great deal of it, so that I was at one time dubbed "tubal pregnancy." One point in diagnosis, in my experience, has been very valuable and that is, the character of abdominal tenderness on palpation. It is different from that due to appendicitis. A very light tap on the abdomen, if there is blood irritating the peritoneal cavity, elicits tenderness. Just a slight tap across the pelvis or lower abdomen, will make your patient flinch. That has been present in nearly all the cases that had any particular amount of hemorrhage in them.

Now, how dangerous is the case that you are called to see? You do not know. It is just like an acute appendicitis, you do not know. The rule will not do for the individual case. Dr. Levings knows of a doctor's wife in Milwaukee, in whom a diagnosis of probable tubal pregnancy was made in the evening, probably appendicitis, because it was on the right side, and who bled to death during the night. All Dr. Levings's efforts and my own assistance, and that of Dr. Sifton, were unable to stay a fatal course. Do you know where the tubal pregnancy is implanted? You do not. If it is implanted in the fimbriated end, or where it can abort, as a rule the bleeding is not serious bleeding. It is in the narrow portion of the tube, and not far removed from the corner of the uterus, that the implantation is dangerous, and that the hemorrhage, when it takes place, may be fatal in two hours or two and one-half hours. I think there is a case on record where a woman fell in a faint on the street in Philadelphia, right near a hospital, and was

taken into the hospital, and the hemorrhage was a fatal one in a short time, from the first symptom rupture.

So that I strongly object to bimanual examination, trying to make a diagnosis of a tubal mass in a suspected case, and I am strongly opposed to waiting at all in a suspicious case of pain. If you are going to watch a tubal pregnancy case, or a suspected tubal pregnancy case, for heaven's sake put a nurse or observing layman on the pulse, and watch the patient. They may die. They are more dangerous, perhaps, than an acute appendicitis.

DR. T. W. TORMEY, Madison: Dr. Echols, have you had any observations of the blood pressure in these cases?

DR. ECHOLS: None.

DR. C. M. ECHOLS, Milwaukee: I had not intended to say anything in closing, but Dr. Sayle's comment on preliminary examination leads me to state that, while recognizing the danger of rupturing a tube from bimanual examination, I still claim that trained fingers will not make a rough examination, just as the trained internist will percuss a chest lightly, whereas one who is untrained will perhaps thump the chest pretty hard. Therefore I cannot help feeling that bimanual examination is justified in every case. To illustrate: one patient I operated upon a week ago yesterday had not missed any period. She menstruated on the 5th of August, regularly again on the 3rd of September, 28 days later. The difference between the last menstruation and the first was that the latter continued for three weeks, almost without intermission. The woman had had sharp pains, once or twice, so she had to have a hypodermic of morphine. But when I was called to see her after this three weeks of flowing there was no mass in the pelvis; the woman was contemplating doing a day's work; she said she certainly felt like it; it was only because I could palpate a spindle-shaped enlargement in the middle of the left tube, not thicker than my ring finger, and not more than an inch and a quarter long, that she consented to go to the hospital and submit to operation. One can detect enlargements of that kind more easily by gentle examination than by any vigorous poking that might rupture the tube. Of course, we must always bear in mind the danger that Dr. Sayle mentioned.

I alluded to the risk of overlooking laparotomy sponges. That does not happen so much nowadays, but I must make a little confession as to what once happened to me. In one of the early ectopic cases, in the presence of an abdomen full of blood, I left not a sponge, but a whole towel in the patient's belly, and if you will believe me, it caused no particular harm, except that in the second week the patient showed signs of a pelvic abscess in the lower abdomen. I made a diagnosis of a foreign body left in the abdomen, probably a sponge, opened the patient myself, on pretext of draining this abscess, and sure enough, found this towel. By a little slight-of-hand maneauvre I removed this towel from the patient's abdomen, under the noses of the anesthetist, my assistant, and three nurses, and not one of them knows to this day that I left any foreign body in there.

SOME BUSINESS ASPECTS OF A MEDICAL CAREER.*

BY W. E. FAIRFIELD, C. M., M. D., F. A. C. S.,

FAIRFIELD-BARTRAN CLINIC,

GREEN BAY.

I have thought that we could profitably survey this field for a short space of time in an effort to determine what should be our attitude concerning the very important decision which many young men must make, and who are apt to consult us as experts in possession of knowledge and experience sufficient to enable us to answer the question offhand—"Shall I undertake a medical career?" I am not inclined to pay attention to the young individual who is obviously unfit to enter into the study, much less the practice of medicine and surgery—further than to say that for him there will never be a place in the medical profession—but I am assuming that the individual seeking advice is of average calibre, and that he has the necessary means or resourcefulness to enable him to prepare for and to pass a preliminary examination that will admit him to at least a Class "B" School of Medicine. We will assume that he is 20 years of age and that it will be necessary for him to spend five years in the actual study of medicine and that he will feel the need of at least a year of internship in a hospital preparatory to commencing its independent practice.

He will be 27 years of age by the time he starts out to earn his first dollar. We will further suppose that he has an average mind in every way, that he is both alive to the self-sacrificing duties of his work—and the fact that the laborer is worthy of his hire—What shall we say to him?

The practice of medicine has been undergoing rapid evolution in the past 20 years. I am speaking of Wisconsin conditions, though the process has been similar and greater or less in degree in every State in the Union. Twenty years ago, the doctor found suitable quarters, bought a few necessary implements, subscribed to a Medical and Surgical Journal, purchased a horse which cost him anything from $75 to $150, and began the practice of medicine and surgery on even footing with the best equipped man in his locality. He attended obstetric cases and diseases of the skin. He treated

*Read by invitation before the Oshkosh Medical Club, January 24, 1917.

every known and many unknown diseases. He "operated" principally upon acute abscesses, and his diagnosis was made from ocular and palpable experiences, and never from laboratory findings. He aborted typhoid fever because it was not typhoid and nobody was the wiser. He "cured" a certain percentage of cases of appendicitis by starvation and rest, and those who died were called by the Lord so it did not assail his knowledge or position in the community. If he had good habits, fair judgment, and, above all, a pleasing personality, he succeeded.

But what of today? I think it will hardly be denied that today the average educated layman knows more of the causative factors and even of the recognized scientific treatment of disease than did the average physician of 20 years ago. He knows the diphtheritic throat and the remedy for it. He knows the rashes of the eruptive fevers. He knows the source and the preventive treatment of typhoid. He knows how to avoid infection of a wound. He has some knowledge of surgical cleanliness and the manner of conveyance of contagion and infection. He can treat tuberculosis as well as can the expert, and of those diseases with the causes of which he is unfamiliar, he not only wants that information, but he looks for elucidation through the laboratory and X-ray room. The amount of knowledge absorbed by the hospital habitué is really astounding and the public is quickly learning that proper equipment is the *sine qua non* of success in surgery and medicine.

This knowledge is being materially advanced by the lay press, the pages of which are so attractive to the layman, when they delve beneath the surface of his anatomy.

It is unfortunate that this knowledge should be disseminated through the press. Its fantastic errors are the result presumably of the employment by the editors of burglars, who break into the laboratories of scientific and ethical gentlemen and who force them at the point of a bayonet to reveal the character of the anaerobic micro-organism which causes infantile paralysis, to produce the micro-photographs of the blood in acidosis produced by unrequited love, and the radiograph of the railroad spike which was used by the celebrated surgeon to nail the risus sardonicus to the pons asinorum. If I have diverted widely from the main issue, it is only to impress upon your minds the infinite variety of far reaching and basic influences which are operative today and which should be taken into account by the young man whose inclinations seem at least to passively lead him in the direction of medicine.

He must be made aware not only of the demands upon his knowledge, but also he must realize the character of the field he intends to cultivate. Every farmer has a son who "Would make a good doctor." Too often this opinion is founded upon the local physician's automobile and his popularity with the women of the neighborhood. Too few parents realize that the study and practice of medicine is fast becoming the job of groups of well-equipped and able business men with means sufficient to provide the necessary workshop for the production of that which they have to sell in competition with other well equipped and successfully managed medico-business establishments. Not only that, but the young man contemplating such a step should know that paternal tendencies in Government are rapidly narrowing the field in which there is already a plethora of laborers.

Ten years ago, we had many independent physiologic and pathologic laboratories, presided over by men who had made this line their life work. They had reason to believe that competition would be fair —the competition of men engaged in like endeavor. Today the State is doing the work without direct cost to the patient (of course the taxpayer pays), and the man who thought he was building upon a secure foundation suddenly discovers that it is but sand.

Indemnity and lodge insurance bodies have taken upon themselves the purchase of the physicians' time and talents and unfortunately most communities have groups of men whose necessities perhaps force them to lend their aid to these destructive agencies.

The establishment of county and community tuberculosis and other sanitariums cuts deeply into the revenues to be derived from each particular field and competition becoming keener is met with reduction in fees which is not only ruinous, but absolutely ridiculous under the existing higher values placed upon the services of every other individual in the community.

I am naming only a few of the more patent causes of unrest in the medical profession and there are many others that could be named and which will arise in your minds as being perhaps even more important. The writer last year made a pil-

grimage to some of the Eastern and Middlewest industrial plants, among which may be mentioned the Rubber Manufacturing plants of Akron, Ohio, The Youngstown Sheet & Tube Works, The American Fork & Hoe Works at Jackson, Michigan, The Automobile Factories of Detroit, and some of the Cotton, Woolen and Munition Plants in Eastern cities.

To describe the medical conditions of all would take too much time, but that of the Goodyear plant at Akron is fairly typical. It employs about 7,000 hands, every one of whom is subjected to a physical examination before being hired. Doctors and nurses are employed in the plant to care for accidents as they occur, and grave cases go to the hospital for treatment. Thus seven thousand men from this one plant are taken out of the field of competition, and with them go their families. The doctor becomes a wage earner like themselves. He does not build up an independent business, but his efforts of years may be destroyed by his discharge from the services of the company. It is not a question of whether the doctor is well paid. I presume he is. Neither is it a question of whether the men and their families get good service. The presumption is that they do. It is a question of the effect of such a system upon the man who studies medicine in the belief that his time will be his own and the world his field.

At the annual meeting of one of the prosperous paper mills of my home city, held a few days ago, it was decided to build a structure to cost $20,000, devoted to the care of the mill's employes. A visiting nurse was engaged to call at the homes and teach systems of hygiene as well as to care for the minor ailments of the family. This mill, like nearly all others, employs a physician to care for its industrial accidents. How long will it be before he will also care for the families, of course, under a reduced charge for the services.

Again, we are not criticising the system or the intent, but we ask in all seriousness, what is to become of the young man who must face these conditions. Again, under present day arrangements, a busy physician must use a great deal of his time daily in filling out blanks for insurance companies, etc. Moreover, if he fills them out correctly, he must have had records of his cases. Indemnity companies require to know not only the nature of the accident, but a lot of other data which is valuable to them since it gives them a direct line upon the moral character of the risk.

No fee is provided for this work. Much of it is required—"As a courtesy to your patient"—and again I ask, how is this to affect the young man entering upon the practice of medicine.

Our office in Green Bay employs a capable young woman at good wages whose work is largely that of furnishing information and keeping records for indemnity companies. The majority of these companies do not even furnish postage for the return of their "Reports."

I could enumerate scores of other instances where medical men are peculiarly susceptible to unjust imposition, but I will desist.

Ian McLaren's idea of the practice of medicine is the governing idea of the lay world and if cure for this canker is to be found, it must come from the men who will refuse to be manipulated. Even the government of this great country is obsessed with the notion that the medical man should quickly and readily sacrifice his ambition and the future care and education of his family for a remuneration, which is absurdly below the requirements of an educated man. When a bridge is to be built; when a tower is to be lighted; when a pier is to be placed, or even when seeds are to be purchased for distribution among the whiskers of the voting community, a fair price is paid: but when one of my acquaintances recently gave up six weeks of his time to the government, leaving a $20,000 practice for less than enough to pay the expense of his mess, when he did this, he was given the task of making charts of the teeth of 1,600 soldiers, and this man was and is an expert in X-ray interpretation. So much for appreciation of ability along special lines.

I fear you will conclude that I am a soured and disappointed man, one who has failed entirely in his work, and therefore, growling forth his criticisms and placing the responsibility upon his surroundings rather than upon his lack of ability and worth. Lest you feel that way, let me say that so far as money is concerned, I have accumulated at least as much as my fondest ambitions pictured at the commencement of my career, modifying this statement with the assurance that my pecuniary aspirations were always extremely modest.

It is not that, but rather a growing realization of the modern situation, not as it affects me, but as it might affect my son, which has led me to

abstain from encouraging an apparent budding desire to follow in my footsteps, even when I have realized that his ability should lead him to loftier planes than I have reached.

My idea of a minimum of preparation is as follows:

From ages 7 to 14 in a grammar school.
From ages 14 to 18 in a preparatory school.
From ages 18 to 22 in a university.
From ages 22 to 28 in a medical school.
From 28 to 29 in travel or study abroad.
From 29 to 30 an interne in a modern hospital.

And what could I offer him in return?

1. A genteel profession and an entre into polite society, other things being equal.

2. The comfort and satisfaction of a well trained mind.

3. A decent and respectable living.

4. Enough to meet the wants of age and decrepitude if he is possessed of good business ability.

Now, an equal amount of studious preparation for other vocations will bring all of these except a job, and I claim that a man who can succeed in the practice of medicine can succeed in any line of business endeavor. I would not discourage the medical aspirations of any youth, but I would have him realize the problems he will have to face, and be prepared to meet them with a fair prospect of vanquishing them.

I have briefly touched upon the present conditions, but what is the future? We cannot with certainty foreshadow the medical and surgical future, but we can state with a fair degree of certainty, that once a government commits itself to paternalistic propaganda, it is more apt to expand than to abolish. The free laboratory and free sanitarium will lead to the free out patient department, if not to a State wide service furnished through the public treasury. If that should come. the physician will then be a salaried employe of the State, and his services will be subject to the changes and viscissitudes of the average political office holder. It is not a cheerful view to take and yet it is logical. There remains and will remain a field for the extraordinary man, or rather group of men, for I am convinced that the practice of this profession in the future will meet its greatest success where groups of men will have banded themselves together under a well organized business head, for the purpose of individually working in a single line wherein one can hope to become more skillful than his fellow who is not so advantageously placed. There is no question but that worth will be recognized, and it will command a just reward. Few will achieve the international repute of some of our present day teaching and research centers, but each will be a power in the community in which it is centered.

The young man will go to such an institution, knowing that there is an unlimited field for his efforts, and that it commands a community respect that will insure him a hearing from the public.

A hospital connection will exist, of course, in each case, and I am strongly of the opinion that these will always be largely controlled by the religious orders because of their permanency of organization and the absence of revolutionary changes, which are apt to be brought about by shifting of personel. The practice of medicine will be first of all under the control of the skilled diagnostician who will separate and classify the cases, referring them to the individual men whose knowledge will be made applicable to their cure.

That a smooth working business arrangement can be so perfected as to give individualistic satisfaction has been demonstrated.

That the collection of fees, and the systematic and efficient handling of business incidental to this work can be made as satisfactory as it is found in a mercantile house is manifestly evident. Histories and records can be kept in such a way as to make the scientific handling of the cases more easy of accomplishment and finally, the practice of this profession will be made more attractive and pleasant and even more profitable. A man will have some leisure for study and for the general development of his mind. He will be able to devote some attention to his family, and he will be weaned from the incubus which now weighs down so many of the men of our day, namely, that success and happiness will finally be measured by the size of his money accumulations.

I would not have you think that I view the question of a career for a young man from a purely financial standpoint. To do so is to cast aside the best medical tradition of the ages. The humanitarian side of the work must never be lost from sight. Without it, the practice of medicine would indeed be a sorry spectacle, but I feel that the evo-

lution of conditions has so materially changed the field, that one is no longer justified in taking up this life work with the blind notion that the inherent goodness of people will see to it that the needs of the physician and his family will be abundantly served. Dependence upon such community impulses will surely lead to bitter disappointment for the few isolated instances wherein grateful patients have cared for the aged and infirm medical man, recognizing a debt, are so rare, as to be negligible in making a calculation of the probabilities of old age financial independence.

I maintain that it is every man's duty to lay aside funds for the education of his family, for aid in the doing of deeds of charity, and to provide against all manners of adversity and the certain wants of old age.

Too many young men enter upon a life career without first carefully weighing all of the conditions which surround the vocation of their choice. Too many become discouraged and either abandon their original plans, to engage in other work, or they continue the old choice, going to their labors as "Slaves lashed to their dungeon" and with the spirit for successful striving potentially, if not actually, dead.

The medical profession does offer many splendid things, albeit that to gain them, one must pay the price. It will continue to draw to itself the life efforts of splendid men and women. These will sacrifice themselves to the relief of human suffering regardless of material benefits that will accrue to themselves. They will count themselves well repaid, because they are able to help their fellow man. True lovers of mankind are these, and we honor them and admire them. We admit that they are of finer clay than are ourselves, for we have dared to question, whereas they have given their time, their talents, and their lives without a thought for the stern realities surrounding this mundane existence.

SYPHILIS AS AN ETIOLOGICAL FACTOR IN LAENNEC'S ATROPHIC CIRRHOSIS OF THE LIVER. Douglas Symmers in a study of Atrophic Cirrhosis of the Liver in the International Clinics concludes that alcohol plays a secondary role in the Etiology of Atrophic Cirrhosis of the Liver. A certain percentage of the cases conform to the type described by Laennec. In this group syphilis is the primary etiological factor and alcohol, if it enters into the process at all, is contributory, and not essential.

CHRONIC COLITIS AND ITS ROENTGENOLOGIC FINDINGS.*

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This paper comprises a study of a group of cases of chronic colitis in which marked pathologic changes occur in the intestinal wall resulting in inflammatory thickening, contraction, granulation, or ulceration.

Chronic colitis is a disease that is constantly attracting more attention from both the medical and the surgical members of the profession. The number of patients affected with the disease is increasing, probably because the number of cures do not keep pace with the annual incidence of the disease. We have recently reviewed the cases of chronic colitis of this type in the Mayo Clinic in which a roentgen examination of the colon was made, and we wish to submit a résumé of the subject including certain roentgen findings that we believe are of particular importance and have not been sufficiently emphasized (Fig. 1).

The etiology in these cases of colitis is obscure. It is probably due to some constitutional derangement with a low grade of intoxication that seems to affect primarily the mucous lining of the large intestine, and at times, the terminal portion of the ileum. Chronic constipation probably plays a part as a predisposing factor but does not explain all. It may be due primarily to some specific organism upon which is superimposed considerable localized trauma, local irritation, and mixed infections. The rectum and sigmoid are first and always the most severely affected but eventually the process tends to become diffused throughout the entire colon and occasionally the lower 12 to 24 inches of the terminal ileum. The early changes occur in the mucosa, which becomes reddened, thickened, and infiltrated with serum and blood cells. This chronic inflammatory reaction results in the formation of granulation tissue. The mucous glands are increased in number and hypertrophied, or they may become atrophic, small or cystic. The mucous folds are increased or decreased in number and lose their normal appearance. There is an overproduction

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*From the Division of Roentgenology, Mayo Clinic, Rochester, Minn.

*The Journal is indebted to C. V. Mosby Company for the cuts used in illustration.

and hypersecretion of mucus. Polypi and pedunculated papillomas may be formed. Localized superficial erosions and chronic ulcerations are frequently superimposed on all these changes, especially when there are polypi and papillomas, giving rise to deeper mixed infection and more profuse bleeding. In the severe and long standing cases localized abscesses and extensive tissue destruction of the mucosa and the submucosa complicate the disease. The remaining structures of the bowel wall undergo corresponding inflammatory changes and they may occur quite early. There is always an edema and lymphocytic infiltration and exudation in the other coats of the intestinal wall accompanying the changes in the mucosa. The coats are congested and thickened, multiple minute areas of scar tissue are formed, the bowel is contracted down, and is comparatively less yielding and less flexible (Fig. 2). Invariably the serosa is covered with a fibrinoplastic lymph exudate and becomes devoid of its normal luster. Frequently the peritoneal cavity contains a small amount of fluid and lymph.

Fig. 1.—(106451.) Normal colon.

The symptomatology is quite well known. There

is usually a history of seasonal spells of chronic diarrhea and spurious diarrhea, with five to twenty, or more, stools per day over a period of weeks or months at a time for many years. The stools usually are thin and watery and contain much mucus, occasionally purulent material, and at times, blood in varying amounts from a trace to moderate or profuse quantities, depending on the duration and the severity of the disease. There may be traces of partially undigested food particles in the stools. There are intervals of complete or partial relief, during which time constipation may be present or the symptoms may be mild and more or less continuous, with a history of acute exacerbations from time to time. The use of the coarser and irritating foods usually exaggerates the condition, and dietetic indiscretions often precipitate an attack. Pain and tenderness are often absent. When present they vary from a diffuse or localized abdominal soreness on pressure, to severe tenderness and marked muscular rigidity. The left lower quadrant of the abdomen is the area most commonly affected, but this condition may be present over the course of the entire colon. Rectal tenesmus and pain at defecation are often distressing symptoms.

Fig. 2.—(126013.) Female, age 25 years. Chronic colitis of 8 years' duration. Roentgenogram shows a small smooth colon, with absence of haustra especially well marked from the hepatic flexure onward. Ileocecal valve incompetent.

Loss of weight is common during severe attacks,

but patients usually regain in the intervals. In some cases the patient is surprisingly well nourished and well developed. Nausea and vomiting are unusual and the appetite is ordinarily very good. An acute attack may prove fatal in a few weeks or months from prostration, dessication, repeated intestinal hemorrhages, or from perforation of the bowel with general peritonitis.

In the event of other pronounced constitutional symptoms, or of the stools containing much blood, there is a moderate or severe grade of secondary anemia. There may be a slight leucocytosis, and in the presence of tissue destruction and mixed infection, there is always present an increase in the white blood count with a moderate predominance of polynuclear cells. Eosinophilia is rare. Digital examination of the rectum usually reveals a roughened and granular mucosa which is hypersensitive, painful, and bleeds easily. The anal sphincter is usually very spastic. The disease is resistant to almost all forms of medical treatment, although palliative measures may control the symptoms to a large extent for long periods of time. Spontaneous remissions are common in the milder stages and forms of the disease.

Fig. 3.—(107128.) Male, age 54. Clinical diagnosis of chronic colitis of eleven years' duration. Roentgenogram shows a narrow, smooth, sausage-like colon. Both flexures ptosed. Incompetent ileocecal valve. No haustration seen.

The incidence of the disease is slightly larger in

males than in females, but there is very little difference, and the disease runs about the same clinical course in both sexes. Rural people and those living in the smaller towns appear to be more commonly affected. There seems to be no particular geographical distribution of the cases examined in the Mayo Clinic.

Fig. 4.—(12716.) Female, age 57 years. History of chronic constipation and migraine for a period of twenty-five years. Roentgenogram shows marked redundancy of the colon. Incompetent ileocecal valve. The bowel is smooth and its outline is practically without haustration, but the colon is not contracted. Further the history distinguishes the case from a chronic colitis.

Repeated stool examinations are always essential as it is necessary to rule out the more common causes of chronic diarrhea. In these cases no intestinal parasites are found. It must be remembered, however, that in an entamebic colitis that has been treated with emetin, the stools may be free from parasites on several examinations and still some of the symptoms exist. Theoretically tuberculous and other specific bacterial infections can be identified by centrifugation of a small portion of the stool content and microscopic examination of properly stained smears. There is also usually a suggestive history and other symptoms and physical signs present in tuberculous and bacillary colitis cases. A history of luetic infection, other constitutional stigmata and the Wassermann reaction will put one on guard for the possibility of a syphilitic lesion in the lower part of the intestinal tract, although, of course, both conditions

may be present. Fortunately syphilis of the rectum and colon is very rare.

The proctoscopic examination is an efficient aid in the differential diagnosis, and in ruling out a low-lying malignancy, either alone or superimposed on some other chronic process. Proctoscopic examination usually reveals a chronic indurative proctitis and sigmoiditis of a granular type which bleeds easily with few ulcerations irregularly distributed. Occasionally small polypi or papillomas may be seen. Frequently it is only by removing a small piece of suspicious tissue and subjecting it to careful microscopic examination that malignancy and the infectious granulomas of the rectum can reasonably be excluded.

Very little has been written concerning the signs elicited in the roentgen examination of chronic colitis, and no great importance has been attached to roentgenologic findings in this disease up to this time. In 1912 Schwarz,[1] of Vienna, described the characteristic features in a small number of cases of chronic colitis. Among other things he included the phenomena of a small and smooth bowel, absence of haustration and incompetence of the ileo-

Fig. 5.—(144665.) Female, age 44 years. Filling defect in the right half of the transverse colon. Roentgen diagnosis: Carcinoma. The remaining bowel is smooth and unhaustrated, but not contracted. The filling defect was produced by a carcinoma, as proved at operation.

cecal valve (Fig. 3). We have found from an examination of a number of colons in chronic colitis that these conditions are invariably present and we believe that their importance should be emphasized. These roentgenologic phenomena are not due to spasm, but result from the organic alterations in the bowel wall, because definite pathalogic changes are found in both the gross and the microscopic appearance of all the coats. Furthermore, they are permanent and cannot be altered in their main appearances and characteristics by the administration of antispasmodics to physiologic effect prior to a second roentgen examination. Besides, enterospasm has not been observed by us during the roentgen examination in this type of colitis.

There are certain other conditions of the large bowel in which some of these phenomena may also be found to a varying degree; but, as a rule, they can be eliminated either by a correlation of the roentgen findings with the clinical data, or the roentgen picture alone may definitely indicate a lesion other than colitis. For example, in an occasional case of chronic constipation, the large bowel may be smooth and show no haustration (Fig. 4). Exceptionally also, in cancer of the colon, the unaffected portion of the bowel may have smooth, unhaustrated borders (Fig. 5). However, these findings are not constant. In such instances the lack of haustration is doubtless due to relaxation of the longitudinal muscle bands—the tenia.

Fig. 6.—(146817.)

The incompetence of the ileocecal valve, which has been noted rather constantly in cases of chronic colitis, is not of itself diagnostically important, since we find it in a very high percentage of all cases examined, whether normal or patholigic. But, in conjunction with other roentgen signs of chronic colitis, it may have some corroborative value, when the barium runs into the ileum spontaneously and profusely.

It is worthy of note that in a limited number of cases examined of chronic endamebic colitis, we did not find a roentgenologic picture in any measure differing from the normal. The group included cases of long standing and of recent exacerbations but none that were prostrated. Sanford[2] has emphasized the fact that the entire syndrome of chronic endamebic colitis as seen in the North is not so severe as in the South and the tropics, which may explain the absence of marked pathologic changes in the bowel wall. However that may be, we believe that the roentgen examination offers distinct value in the differentiation of these two diseases, especially as seen in this latitude.

Fig. 7.—(134997.)

Our own experience suggests that the roentgen findings when carefully correlated with the clinical history can be made of much use in the diagnosis of chronic colitis. The roentgenogram also enables a more accurate estimate of the extent of involve-

ment and thus may serve as a guide in determining whether the treatment shall be medical or surgical.

Both roentgenoscopy and roentgenography were employed in the cases herewith reported. The enema was preferred to the ingested meal. In an extensive chronic colitis of long standing the capacity of the colon is materially lessened. It fills very rapidly, and if the clyster is administered with much force the patient is very likely to expel it before the roentgen observations are completed.

The following illustrative cases were selected from the group studied:

Fig. 8.—(160059.)

CASE 146817.—Male, aged 38; shoemaker. Registered November 30, 1915.

Previous History.—Pneumonia April, 1915.

Present Illness.—For 2 years spells of diarrhea with 15 to 20 stools per day of a thin watery character, with much mucus and at times blood stained; odor not offensive. With attacks there was loss of weight and strength. During the past four months, interval of but two weeks when he was free from severe symptoms, and during the past three months there has been considerable bright red blood in the stools, much abdominal cramp-like colic and rectal tenesmus. Never any chills or fever noted.

Physical Examination.—Considerable emaciation. Evidence of moderate anemia. Pyorrhea alveolaris and gingivitis present. Palpable liver margin. Slight tympanitis and slight diffuse abdominal tenderness. Digital examination of rectum negative.

Urinalysis.—Negative.

Blood Examination.—Hemoglobin 70 per cent; 4,520,000 red blood cells; 10,000 white blood cells; 38 per cent polymorphonuclear leucocytes; 44.3 small lymphocytes; 16.7 per cent large lymphocytes; 1.0 per cent eosinophiles. Wassermann, negative.

Stool Examination.—Red blood cells and pus cells present, no parasites found. Culture from stool negative for Shiga bacilli.

Roentgen Examination.—Colon, small and smooth throughout. No visible haustration. Ileocecal valve, incompetent. (Fig. 6.)

Clinical Diagnosis.—Chronic colitis; pyorrhea alveolaris and gingivitis.

Operative Findings.—Colon contracted to about caliber of small intestine, and presents appearance of a chronic inflammatory reaction with thickened and edematous

walls, increasing in severity from cecum downward to rectum.

Operation.—Ileostomy (Brown)—Appendectomy secondary.

CASE 134997.—Female, aged 33. Housewife. Registered September 13, 1915.

Previous History.—Negative.

Present Illness.—A 9 year history of chronic constipation with passage of some mucus in the stools, and at times blood tinged. For the past 2 years constipation has been more marked, requiring brisk laxatives or purgatives which in turn caused a diarrhea that required medicine to control. For the past 6 months she has complained of diarrhea and spurious diarrhea associated with the passing of mucus streaked with bright red blood, also cramp-like abdominal pains and rectal tenesmus. Normal weight 107 pounds, present weight 97 pounds.

Physical Examination.—Thin and pale in appearance. Marked intestinal peristalsis demonstrable. Digital examination of the rectum painful; rectal mucosa roughened and congested.

Urinalysis.—Negative.

Blood Examination.—Hemoglobin 60 per cent, 4,500,000 red blood cells, 14,400 white blood cells, and a normal differential count. The Wassermann was negative.

Fig. 9.—(172507.)

Stool Examination.—Red blood cells and pus cells present, no parasites found.

Proctoscopic Examination.—Chronic proctitis and sigmoiditis with some superficial ulcerations.

Roentgen Examination.—The left arm of the transverse colon, the splenic flexure, the descending colon, and the sigmoid are small, smooth, and unhaustrated. This condition was unchanged after the administration of an antispasmodic to physiologic effect. Note that the dis-

ease is limited to the left half of the large bowel as shown in the roentgenogram (Fig. 7).

Clinical Diagnosis—Chronic ulcerative colitis.

Operative Findings.—Chronic ulcerative colitis.

Operation.—Ileostomy (Brown)—Appendectomy secondary.

Case 160059.—Female, aged 28. Clerk. Registered May 18, 1916.

Previous History.—Negative except appendectomy 10 years ago elsewhere.

Present Illness.—For 12 years she had had spells of diarrhea and bloody stools associated with loss of weight and strength. Some temporary relief with medical, dietetic, and local treatment. She has been without symptoms as long as a year at a time. At the present time there are 6 to 8 stools daily, containing much blood and mucus and associated with considerable tenesmus.

Physical Examination.—Negative except for some tenderness over the entire colon and considerable tenderness on digital examination of rectum.

Urinalysis.—Negative.

Blood Examination.—Hemoglobin 80 per cent.

Stool Examination.—Negative for parasites.

Proctoscopic Examination.—Examination very difficult on account of the contracted condition of the rectum. Marked proctitis which bleeds easily. No gross ulcerations. The sigmoid could not be examined on account of spasm.

Roentgen Examination.—Beginning at the hepatic flexure the colon was smooth, contracted and without haustral markings. The narrowing was most marked in the left half of the transverse colon, the descending colon and the sigmoid. The transverse colon was redundant. Ileocecal valve incompetent. (Fig. 8.)

Clinical Diagnosis.—Chronic granular colitis.

Operative Findings.—Granular type of chronic colitis. Definite thickening and narrowing of the colon wall. Slight injection of its blood vessels. Appendix removed at former operation elsewhere.

Operation.—Ileostomy (Brown).

Autopsy.—General peritonitis. Colon showed chronic inflammatory changes with marked thickening throughout its entire wall and many petechial hemorrhages, old and recent, in its mucosa. No ulcerations. Small papilloma in the descending colon.

Case 172507.—Male, aged 35. Iowa farmer. Registered September 14, 1916.

Previous History.—Negative.

Present Illness.—For 3 years there have been spells of diarrhea with blood stained mucus in the stools, and associated with rectal tenesmus. The early spells were of about 6 weeks' duration. Considerable loss of weight with each attack. During the past 14 months the symptoms have been practically continuous and the stools contained considerable blood. For the bleeding he had a cauterization of the rectal mucosa elsewhere with practically no improvement. For the 3 weeks prior to admission to the clinic he had had 10 to 20 stools per day, containing much blood mucus. History of slight fever at times during past month.

Physical Examination.—Twenty pounds loss of weight. Evidence of anemia. Slightly tender over entire abdomen. Digital examination of rectum painful and difficult.

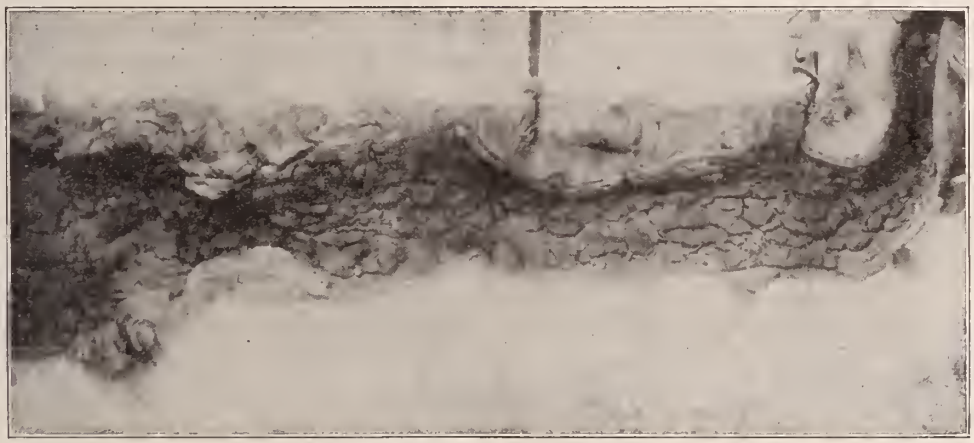

Fig. 10.—(172507.)

Urinalysis.—Negative.

Blood Examination.—Marked secondary anemia with an average hemoglobin of 34 per cent. Wassermann negative.

Stool Examination.—Negative for parasites; red blood cells and pus cells present.

Proctoscopic Examination.—External and internal hemorrhoids were found but not sufficient to account for all symptoms. Large fissure into rectum. Indurated area in anterior wall of rectum 2 inches up.

Roentgen Examination.—Roentgenoscopy.—Entire colon smooth, contracted and without haustration. Roentgenogram (after involuntary partial evacuation).—Hepatic flexure, descending colon and sigmoid mottled in appearance; ileocecal valve incompetent (Fig. 9).

Clinical Diagnosis.—Fissure of rectum (postoperative), hemorrhoids; chronic ulcerative colitis; secondary anemia.

Clinical Notations.—Medical and dietetic treatment,

and blood transfusion without improvement. Died 13 days after admission.

Autopsy.—Chronic inflammatory changes in the wall of the large bowel with marked diffuse edema and thickening of all its coats. The mucosa shows chronic ulcerations in the lower colon and rectum (Fig. 10).

CONCLUSIONS.

1. There is a group or chain of subjective and objective symptoms that is quite characteristic of chronic colitis.

2. There are definite organic changes in all the coats of the colon wall in chronic colitis, resulting from chronic inflammatory reaction with edema, lymphocytic infiltration, thickening, scar tissue formation, and contraction.

3. The roentgen examination in these cases shows the colon to be small, smooth and without haustration in the part or parts affected.

4. A more accurate estimate as to the extent and severity of the involvement can be obtained by a correlation of the clinical history with the roentgen findings.

5. The roentgenogram will frequently be an aid in determining the course of subsequent treatment.

6. In a limited number of examinations we have not found cases of chronic endamebic colitis which furnish any characteristic or similar roentgen findings. Therefore, it appears to be an aid in differentiating amebic from chronic colitis.

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A METHOD FOR OBTAINING BLOOD FROM INFANTS AND YOUNG CHILDREN FOR THE WASSERMANN TEST.

BY A. L. KASTNER, M. D.,

MILWAUKEE.

The problem of safely and expeditiously obtaining a sufficient amount of blood for a Wassermann test from an infant or from a child offers difficulties. In order to obtain sufficient blood from finger, toe or ear, incisions are sometimes necessary that border on mutilation and the end results oftimes reveal as much blood outside the container as within. It is notorious that in the very young, for one reason or another, it is often very difficult and even impossible to needle successfully the various surface veins. In the infant with an open anterior fontanelle the longitudinal sinus certainly offers an ideal site for an abundant and uncontaminated supply of blood. Still, on account of a demand for skill and experience in a rather unusual direction, the longitudinal sinus is not apt to be a popular route of choice. Though a safe and certain procedure in skilled hands, puncturing the frontal sinus is apt to be considered a measure somewhat heroic when 1 or 2 cc. of blood is the only desideratum. As every method known has advantages and disadvantages the choice of a method is after all only a question of expediency. This is my chief reason and excuse for bringing to your notice another method which, though also open to objections, I have found to be quite satisfactory and very practical. It is not original though when I first used it I was unaware that it was in common practice elsewhere. I was led to its use by a remark spoken half in jest by Dr. R. C. Brown when I one day querulously voiced a desire for knowledge of a convenient bloody place on the infant economy from which to draw blood for a Wassermann. He simply said: "Well, the nose is a good, bloody place." And it is.

Method. The patient is wrapped in a sheet, arms down the side, just as if preparing for an intubation. Infants are held in the arms of an assistant, older children may sit on lap or table. The nostrils are cleansed with a mild antiseptic solution and a cotton applicator. Remembering that the common seat of epistaxis is from the lower and anterior portion of the cartilaginous nasal septum, where the mucous membrane is particularly thin and vascular, a short horizontal incision is here made with a small, sharp, cotton-guarded knife. The incision in the septal mucous membrane is best placed a trifle above the floor of the nasal passage and well in the nostril, selecting a site that is easily accessible, open to inspection and convenient for subsequent tamponade. As soon as the cut is made, almost invariably, blood begins to flow. The baby in arms is then bodily reversed and older children are bent sharply forward so that in either case the tip of the nose is dependent and makes an

admirable spout from which the blood drops or trickles into the test tube or vial. When sufficient blood has been obtained the nostril is plugged with cotton. This method is most easily practiced in infants, but I have used it successfully and with little trouble in children of 7 or 8 years. The presence of a nasal discharge is apt to be troublesome and even a positive contraindication to nasal bleeding. A nasal discharge can be very effectively dealt with, however, by thoroughly plugging *both* nostrils before the incision is made. The possibility of infection following the incision must be considered. Fortunately the great vascularity of the septal mucous membrane which makes it such an excellent field for drawing blood, also is a safeguard against infection. I have seen no nasal infection in any of my cases. A specimen drawn from the nostril is of course not sterile but I doubt if the contamination is very much greater than when blood is drawn from a finger or toe. At any rate, it is wise to have the specimen in the laboratory as soon as possible after it is drawn.

Electrotherapy of Heart Disease and Arteriosclerosis. Weber remarks that with electrotherapy we are now realizing results unachievable with repose and digitalis alone in heart disease and arteriosclerosis, and not even when supplemented with massage, gymnastics and carbonated baths. The electric current has long been utilized in strengthening subnormal muscles, and failing compensation is nothing but muscular insufficiency. The same can be said of the walls of the vessels, and Weber cites a recent writer to the effect that electricity in the form of the interrupted current is an actual specific against vascular disturbances, relieving spasms, and transforming paresis to normal conditions. Weber prefers what he calls the condensator current, and reports here nineteen cases in which he treated patients with cardiovascular trouble with this form of galvanic electrotherapy. Lost compensation, an extremely irritable nervous system, and contracted kidney are about the only contraindications. He tests the heart functioning by having the patient hold his breath in the midst of quiet breathing. Figures below thirteen or fifteen seconds strongly suggest insufficiency of the heart musculature. Another test is the difference between the pulse reclining and standing. If the heart is working normally, the pulse becomes slower after a change from the vertical to the horizontal position. His third test is Herz' autoinhibition, that is, the patient slowly flexes his right arm at the elbow, and then extends it again, concentrating his entire attention on the procedure. The pulse before and after shows little difference if the heart is sound, but with myocardial disease the pulse is materially retarded. With nervous heart affections, on the other hand, it is much accelerated.—*Abs. J. A. M. A., Mar. 10, 1917.*

ELECTROCARDIOGRAPHIC RECORDS.

In a recent address before the New York Diagnostic Society Dr. M. J. Mandelbaum calls attention to the fact that each large center of population should have one or more diagnostic institutes: places where cases may be received primarily for a thorough, complete physical examination. He calls attention especially to the limited number of hospitals in New York City where an electrocardiograph record of the heart may be obtained. No complete diagnosis of cardiac insufficiency may be made without such a record, and it is only within the last few years that "heart stations" have to a limited extent been established.

In 1903, Einthoven, a Dutch physiologist of Leyden, Holland, introduced a new instrument to the medical world now familiarly known as the string galvanometer. By its means the minute electrical currents of the human heart while beating may be obtained in graphic form. By comparison of these graphic records with the findings determined by the usual diagnostic methods; with the findings acquired at post-mortems and with the results of experiments on animals, it is becoming obvious that Einthoven has placed within the hands of medical men an instrument of great diagnostic value. That this aid to diagnosis has found so little application in Nebraska is undoubtedly due to the complexity and cost of the installation necessary and to the fact that "heart stations' are not accessible to practitioners in general. Or, if they are accessible, great difficulty is often experienced in bringing a very sick patient and the cumbersome "heart station" into juxtaposition. So, as might have been foreseen, the string galvanometer has found its "place" in hospital and as stated by Lewis: "The time is not distant when no hospital which undertakes the care of many of these (cardiac) patients may neglect the string galvanometer, if it is to rank amongst institutions whose design is proficiency."

In brief, the specific advantages to be gained by the study of electrocardiographic records are as follows:

(1) It gives a better means than any other diagnostic method of getting information concerning the all-essential heart muscle. The indications it yields of enlargements of the walls of one or other of the cardiac chambers are rarely at fault. It is the last court of appeal in differentiating right hypertrophy.

(2) In giving a separate record of auricle and ventricle and accurately defining their time relations it allows us to differentiate between different forms of slow and rapid heart action which are of totally different significance. To those who have attempted a record of the venous pulse, the ease with which far more abundant information concerning the auricle can be gained with the galvanometer, speaks in eloquent terms.

(3) It tells whether the heart beat starts at the normal center for impulse formation or away from it; in the last case the rhythm is no longer under normal nervous control. Within limits it tells where the new beats originate. In this way it provides, in the analysis of all forms of heart irregularity, a method unrivalled in precision.—*Nebr. State Med. Jour., Jan., 1917.*

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EDITORIALS

NOTICE TO DELINQUENTS.

IF YOU HAVE NEGLECTED TO PAY YOUR 1917 DUES, YOUR MEMBERSHIP IN THE COUNTY AND STATE MEDICAL SOCIETIES, YOUR SUBSCRIPTION TO THE JOURNAL, AND YOUR INSURANCE AGAINST MALPRACTICE SUITS WITH THE STATE SOCIETY, EXPIRED FEB. 1ST. PLEASE MAKE IMMEDIATE REMITTANCE TO YOUR COUNTY SECRETARY!

HONOR ROLL.

THE FOLLOWING COUNTY SOCIETIES HAD ON MARCH 31ST EITHER EQUALED THEIR LAST YEAR'S MEMBERSHIP OR HAD NO DELINQUENTS. THOSE MARKED WITH A * HAVE MADE A GAIN IN MEMBERSHIP. IS YOUR SOCIETY IN THE LIST?

*CALUMET
*CHIPPEWA
DOOR
*DOUGLAS
FOND DU LAC
*JEFFERSON
JUNEAU
LA CROSSE
*LANGLADE
LINCOLN
MANITOWOC
MARINETTE-FLORENCE
*MONROE
*ONEIDA-FOREST-VILAS
PIERCE
PORTAGE
*OCONTO
OZAUKEE
RUSK
SHEBOYGAN
TREMPEALEAU-JACKSON-BUFFALO
VERNON
WASHINGTON
WOOD

MEDICAL PREPAREDNESS.

WE are publishing in this number by request an abstract of the quiet preparation which has been going on for the past few months among the medical men of the country. The army and navy and the medical officers' reserve need medical men to complete their personnels. Now that the United States Government has declared a state of war to exist with Germany there will be a call for many doctors. Among the members of the State Medical Society are now quite a number who belong to the reserves. Possibly there will be others who would like to enroll themselves. The Base Hospital Unit in Milwaukee is practically complete and in a few weeks

hopes to have all its supplies. Not all the men are fire-eaters, as some ardent ones now appear to be. If we must have the barbaric, brutalizing, uncivilized, anachronistic institution called war, let us get ready and get through with it as soon as possible. God knows, it is a nasty mess but as we are in for it, let us make the best of the situation which has been created for us.

STATE COMMITTEE ON MEDICAL PREPAREDNESS.

IT has been impossible up to the present time for the State Committee on Medical Preparedness to accomplish all that is desirable or necessary. There is still a very considerable handicap to the progress of this work in the inability of the surgeon general's office to co-operate at the present time by the provision of literature, application blanks and other details. This is due to the fact that the entire War Department is overwhelmed with the tasks suddenly thrust upon it. Every physician in Wisconsin of suitable years and attainments will be given opportunity through the county medical societies of joining the medical reserve corps for service with the armed forces as may be needed. It is expected that Wisconsin will do her full duty in this respect, but if she is to do it, every physician in the State must do his or her part by volunteering for service in case of need. It must be remembered that the necessity for prompt action is not that the need is immediate, but that steps must be taken now to provide against it when the need comes. Every physician should co-operate with the county committees in order that these committees may be enabled through the State committee to place on file in Washington a complete list of everyone capable, willing and ready to serve. In order to make this service the least burdensome to those individuals as may be called away from home, and as a guarantee of the willingness of the profession to serve the public and each other, it is greatly to be desired that the following plan may be ratified and adopted by the officers of the State society:

First. That the families of all soldiers shall be given medical attention without charge during the time that the men are unable for whatever cause to follow their usual vocations.

Second. That during the absence of any physician through his service of whatever nature with the armed forces, he shall not forfeit the income from his practice, which, in the great majority of instances, would be the sole support of his family, and that his colleagues shall send to the treasurer of the State medical society some proportion of the fees, possibly one-third, obtained through services rendered to the absent physician's patients, the same to be paid by the treasurer directly to the families. In addition, when the physician returns from active service, an account shall be made to him by the treasurer and at the same time notice will be sent to his patients, announcing the return of each physician from active service and his readiness to resume his practice. In this way it is hoped to avoid every possibility of criticism.

I realize that there is no need to urge the medical profession of Wisconsin to show its patriotism by expressing a willingness to serve, in whatever capacity, the armed forces of the nation, but I do realize the difficulties under which the development of the proper organization is being attempted, and, for that reason, bespeak the immediate and enthusiastic co-operation of the physicians of Wisconsin with the county committees now formed.

HOYT E. DEARHOLT,
President State Medical Society of Wisconsin.

BETTER DIAGNOSIS.

PROGRESS made by physicians in the diagnosis and treatment of tuberculosis in the last few years as a direct result of the educational campaign by which the attention of the lay public as well as of the medical profession has been focussed on the importance of early and honest diagnosis is indicated most convincingly by two comparative studies made by Dr. John B. Hawes, 2nd of Boston. Five years ago, following the series of community and rural investigations of Wisconsin conditions made by the Wisconsin Anti-Tuberculosis Association and forming the basis of Dr. Hoyt E. Dearholt's paper, "The Relation of the Physician to the Public Campaign Against Tuberculosis," presented at the 65th annual meeting of the State Medical Society and published in the Wisconsin Medical Journal of July, 1911, Dr. Hawes made a similar study in Massachusetts. The value of that first study has now been increased by a second one, a study of 100 con-

secutive cases diagnosed as tuberculosis at the Massachusetts General Hospital, 100 at the Boston Consumptives Hospital, and 500 at the North Reading, Lakeville, Westfield and Rutland state sanatoria. A summary of the second study is published in pamphlet form under the name, "Five Years' Progress in the Diagnosis and Treatment of Consumption by Massachusetts Physicians."

In the study of the 100 cases from the Massachusetts General Hospital out-patient department, Dr. Hawes, says: "The 1915 figures show an interesting change over those of 1911, in that whereas in 1911 the number of first-stage cases (30) is not much less than that of 1915 (40), the number of positive sputa (58 in 1911) is notably greater than that of 1915, which is only 19. This means that the diagnoses are being made when the disease is really in its incipiency and not when it is moderately advanced with a positive sputum.

"The percentage of incipient cases at the Rutland State Sanatorium, which fell as low as 18% in 1910, when the applications of patients for this institution were first thrown open to the medical profession, has now risen to 37% for the year 1915. This increase in the proportion of incipient cases at Rutland is in spite of the fact that the provision for consumptives in Massachusetts at the present time is not relatively greater than was the case in 1911."

There is still room for improvement, however, Dr. Hawes points out, citing the following:

"In 1911 nearly 50% of those patients who consulted a doctor on account of hemorrhage were told that this did not mean consumption and that they might go on their way rejoicing; in 1915 only 40% of this class of patients were thus misled.

"According to the 1911 figures out of 500 known consumptives 285, or 55%, were told by their doctors that they did not have consumption, or what is perhaps worse, were not told that they did have consumption. In 1915, the figures had dropped to 251 or a trifle over 50%."

Of the patients at the state sanatoria there were 408 patients in 1915 who never suspected that they had lung trouble until so told by a physician as against 77 in 1911.

"I hope it means," said Dr. Hawes, "first, that more patients are going to a doctor for routine examinations before they feel seriously ill and second, that doctors are more awake to the possibility of tuberculosis being present, even in the absence of signs pointing to this disease."

Another encouraging improvement over 1911 lies in the fact that out of the 500 patients, over twice as many in 1915 made application at once for admission to a sanatorium and only one-third as many waited over six months before applying.

We hope that equal improvement in diagnosis, conscientious advice and frank acquainting of patients with the nature of their disease, in order that they may intelligently resist it, has come to pass in Wisconsin. Notwithstanding our confidence that there has been a great gain accomplished here also, we should like to see the fact—if it be a fact—demonstrated in an unequivocal manner.

L. F. B.

COMPULSORY HEALTH INSURANCE.

I. THE SHEEP AND THE GOATS.

THE plan advocated by the proponents of Social Insurance sounds at first hearing to be a boon to the wage earner. A closer study of the whole scheme reveals it as a theory, and an expensive one at that, which is based on the questionally favorable experience of European countries where industrial conditions, poverty and class distinctions exist as they do not exist in America. Before we urge the passage of such legislation we should inform ourselves upon both sides of the question. There is grave danger of going off half-cocked. The plausible arguments of the advocates and the appeal to the humanitarian side are apt to work on the feelings and warp judgment.

This country is not socialistic or paternalistic. Our nation is individualistic. It was founded on the fundamental idea that every citizen had the inherent right to equality of opportunity, life, liberty and the pursuit of happiness. Now the central proposal of the scheme for Social Insurance is that there are to be class distinctions in labor. In one class are those who earn less than $100 a month, in the other class are those who earn more than $100 a month. It must make the monarchial European smile to hear us rail at his artificial class distinction granted by an accident of birth, and in the same breath propose to enforce by law a class distinction at one stroke which is far worse than his.

Why place the limit at $100 a month? The very

fact that a figure is placed as a minimum and all under this are to be compulsorily insured, is a begging of the whole question and an acknowledgment of the creation of class distinction. Two families live side by side, let us say, in the same house. A earns $95 a month, has a wife and child. He has the benefits of a compulsory Insurance Law. B earns $110 a month, has a wife and five children. He would be prohibited from benefits. Moreover he is taxed by the State to help pay for A's benefits. Let us suppose further than A is somewhat of a loafer, is inclined to shirk his job, while B is a hard-working, sober, industrious man. Is it reasonable to think that these two families will not be divided by an act of the State? How can such an artificial separation of people into those who do and those who do not, fail to create ill-feeling and jealousy, spite and even hatred among the working classes, especially among the women of these people.

Three great groups of people are bitterly opposed to Compulsory Health Insurance: the American Federation of Labor, the Employers of the labor, and the National Civic Federation. If the idea is going to be such a God-send to labor, why then is the Federation of Labor opposed to it? Why do they not stand behind it as one man and work for it? If the laborers themselves do not want it, shall we in our superior wisdom say, "Yes, yes, children, we know it is not wanted but we want you to have it. In fact we are going to force it down your throats whether you want it or not"?

This is only a very small part of this question but it is a very important one. The Journal has had articles on this subject from time to time. There will be more articles dealing with this vital question for we must know before we can act intelligently.

A NEW BULLETIN.

That enthusiasm and "pep" are not confined to the larger county medical societies, is shown by the last addition to the family of County Medical Society Bulletins. This is published by the President of the Oneida-Forest-Vilas County Medical Society, Dr. W. C. Bennett of Rhinelander, and made its debut with the March issue. It is a most credible little publication which will make for a bigger and better society in these counties. Dr. Bennett is to be congratulated on his enthusiasm and may well be proud of his "first born". He not only writes his bulletin but prints it as well. We hope every county society will soon be publishing its own bulletin. Write "Ye Editor" for a "sample copy".

A SIGNPOST IN PROGRESS.

"IT is customary for merchants to take an inventory once a year to find out what stock they have on hand, to determine the extent of their past business, and how business can be bettered during the coming year.

"It was with a similar idea in mind that this sanitary survey was undertaken, that we might know, as nearly as possible, the present sanitary facilities afforded by our village, and what we can do in the future to better them."

So begins the preface to a neat pamphlet issued by the Board of Health of the Village of Cornell, Wisconsin, describing a sanitary survey of the village made by Dr. I. F. Thompson, Deputy State Health Officer, and Dr. H. B. Beeson, Health Officer for Cornell.

We have read every word of this folder and we have a feeling that Cornell has started something. One is amazed that this sort of "taking stock" isn't done oftener by all communities having a corporate existence. Cities have made and published surveys but small towns have not done so. The value of a series of surveys over a number of years would be the real index of the prosperity of a community; for it is a truism that the healthier the people the more prosperous they are. Show me a well-ordered, clean, hygienic, sanitary city or town and I'll lay a wager that savings bank accounts are numerous. You can not have dirt and prosperity, Babylon and Bagdad to the contrary notwithstanding. The dirt wins out in the end.

So we say that Cornell has set a pace for other towns to follow. It describes itself truthfully and tersely. It lays bare the canker-sores, it glosses over nothing. And it makes some recommendations which are sane and reasonable which if carried out will make Cornell a much better place for men and women to live in and to bring up their children to be clean and healthy.

We hope that Cornell will have other surveys made at intervals. We dare to hope that other towns and villages will hold the mirrors before their faces and find out how they appear. It will be excellent exercise and can do no harm.

WANTED.

The Wisconsin Committee on Medical Preparedness has received an urgent request from the Council of National Defense, Washington, asking that local committees be formed in each county of the state, and urging that every desirable and qualified physician under the age of fifty-five be enrolled in the Medical Reserve Corps. You are asked to communicate at once with the secretary of your county medical society who is a member of your local committee.

At a time of grave national peril such as this, all will agree that it is the duty of good and loyal citizens who have special knowledge valuable to their government in time of war, to give active assistance in the work of preparedness. None of us can tell what the future may hold in store for our beloved country nor how grave her needs for help from her citizens may be. The preparedness move is in the nature of an inventory of the resources she may have to call on and a listing of these. No branch of the government service will be of more importance in time of war than the medical, and realizing this, Wisconsin has been called on to list her medical resources—those she can furnish in time of need.

The State Committee is confident we can depend on our county organizations and individual members to do their share in showing that the medical profession of Wisconsin stands ready to do it's patriotic duty if called on. Write your county secretary today!

EDWARD EVANS, *Chairman,*
ROCK SLEYSTER, *Secretary,*
Wisconsin Committee for Medical Preparedness.

INFORMATION REGARDING THE CORRELATED ACTIVITIES OF THE COUNCIL OF NATIONAL DEFENSE AND THE ADVISORY COMMISSION, THE MEDICAL DEPARTMENTS OF GOVERNMENT AND THE COMMITTEE OF AMERICAN PHYSICIANS FOR MEDICAL PREPAREDNESS.

MEDICAL PREPAREDNESS.

Under existing conditions it is desirable that every physician as well as very other loyal citizen of America should be prepared to render active service to the Federal Government, remembering that the protection afforded by the Government has made it possible for its citizens to enjoy liberty, peace and prosperity.

The avenues through which the most effective service can be rendered by members of the medical profession have taken definite and concrete form. Briefly, the plan is that all medical activities should co-operate with the Council of National Defense.

It would seem desirable at this time to state explicitly just what the Council of National Defense and its various agencies are.

The Council of National Defense was created by Act of Congress, August 29th, 1916:

"Sec. 2. That a Council of National Defense is hereby established, for the coordination of industries and resources for the national security and welfare, to consist of the Secretary of War, the Secretary of the Navy, the Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, and the Secretary of Labor.

"That the Council of National Defense shall nominate to the President, and the President shall appoint, an advisory commission, consisting of not more than seven persons, each of whom shall have special knowledge of some industry, public utility, of the development of some natural resource, or be otherwise specially qualified, in the opinion of the council, for the performance of the duties hereinafter provided. * * *.

"That the Council of National Defense shall adopt rules and regulations for the conduct of its work, which rules and regulations shall be subject to the approval of the President, and shall provide for the work of the advisory commission to the end that the special knowledge of such commission may be developed by suitable investigation, research, and inquiry and made available in conference and report for the use of the council; and the council may organize subordinate bodies for its assistance in special investigations, either by the employment of experts or by the creation of committees of specially qualified persons to serve without compensation, but to direct the investigations of experts so employed."

A committee of distinguished physicians was asked to present to the President, names of medical men suitable for membership on the advisory commission. Dr. Franklin H. Martin of Chicago was selected.

The following statement was issued by President Wilson on the night of October 11, 1916, in announcing his appointment of the civilian advisory members of the Council of National Defense:

"The Council of National Defense has been created because the Congress has realized that the country is best prepared for war when thoroughly prepared for peace. From an economic point of view there is now very little difference between the machinery required for commercial efficiency and that required for military purposes.

"In both cases the whole industrial mechanism must be organized in the most effective way. Upon this conception of the national welfare the council is organized in the words of the act for 'the creation of relations which will render possible in time of need the immediate concentration and utilization of the resources of the nation.'

"The organization of the council likewise opens up a new and direct channel of communication and co-operation between business and scientific men and all departments of the government, and it is hoped that it will in addition become a rallying point for civic bodies working for the national defense. The council's chief functions are:

"1. The coordination of all forms of transportation and the development of means of transportation to meet the military, industrial and commercial needs of the nation.

"2. The extension of the industrial mobilization work of the Committee on Industrial Preparedness of the Naval Consulting Board and complete information as to our present manufacturing and producing facilities adaptable to many sided uses of modern warfare will be procured, analyzed and made use of.

"One of the objects of the council will be to inform American manufacturers as to the part which they can and must play in national emergency. It is empowered to establish at once and maintain through subordinate bodies of specially qualified persons an auxiliary organization composed of men of the best creative and administrative capacity, capable of mobilizing to the utmost the resources of the country.

"The personnel of the council's advisory members, appointed without regard to party, marks the entrance of the non-partisan engineer and professional man into American governmental affairs on a wider scale than ever before. It is responsive to the increased demand for and need of business organization in public matters and for the presence there of the best specialists in their respective fields. In the present instance the time of some of the members of the Advisory Board could not be purchased. They serve the government without remuneration, efficiency being their sole object and Americanism their only motive."

As indicated above the Council of National Defense therefore consists of six members of the Cabinet as follows:

The Secretary of War, Chairman.
The Secretary of the Navy.
The Secretary of the Interior.
The Secretary of Agriculture.
The Secretary of Commerce.
The Secretary of Labor.

The Advisory Commission of the Council of National Defense consists of seven civilians appointed by the President. The members of the Advisory Commission are as follows:

Mr. Daniel Willard, President of the Baltimore & Ohio Railroad, Chairman.
Mr. Hollis Godfrey, LL. D., President of Drexel Institute, Philadelphia, Pa.
Mr. Howard E. Coffin, of Detroit (who is also chairman of the Committee on Industrial Preparedness of the Naval Consulting Board).
Dr. Franklin H. Martin, of Chicago.
Mr. Bernard Baruch, Financier, of New York.
Mr. Julius Rosenwald, Vice-President of Sears, Roebuck & Company, of Chicago.
Mr. Samuel Gompers, President of the Federation of Labor.

The two bodies meet in joint session at frequent intervals for the purpose of considering problems relating to national defense.

The executive activities of the Council of National Defense are coordinated and carried out through the medium of the Director of the Council of National Defense, Mr. W. S. Gifford, and the chiefs of the various departments represented by the members of the Advisory Commission. Dr. Frank F. Simpson is chief of the Medical Section of the Council of National Defense.

THE ADVISORY COMMISSION.

The organization of the Council and of the Advisory Commission provides that each member of the Advisory Commission shall gather about himself for the most effective coordination of the activities he represents, a committee or board consisting of representatives of governmental departments on the one hand, and civilian members on the other hand.

The Medical Committee, of which Dr. Franklin H. Martin is Chairman, consists of

Wm. C. Gorgas, Surgeon General of the U. S. Army.
Wm. C. Braisted, Surgeon General of the U. S. Navy.
Rupert Blue, Surgeon General of the U. S. Public Health Service.
Col. Jefferson R. Kean, Director General of Military Relief of the American Red Cross.
Dr. Wm. H. Welch, member of the National Council of Research.
Dr. Wm. J. Mayo, Chairman of the Committee of American Physicians for Medical Preparedness.
Dr. Frank F. Simpson, Chief of the Medical Section of the Council of National Defense, and Secretary of the Committee of American Physicians for Medical Preparedness.

Many medical problems which have bearing upon the national defense are considered by Dr. Martin's Committee and by the Advisory Commission and the Council of National Defense before being put into action by the governmental departments concerned.

COMMITTEE OF AMERICAN PHYSICIANS FOR MEDICAL PREPAREDNESS—ITS COMPONENT PARTS.

National and State Committees.

In April, 1916, the national committee was appointed by the joint action of the presidents of the American Medical Association, the Americal Surgical Association, the Congress of American Physicians and Surgeons, the Clinical Congress of Surgeons of North America, and the American College of Surgeons. To that committee was delegated the responsible duty of formulating plans whereby the civilian medical resources of the United

States might be ascertained and effectively coordinated for such purposes as might be required by the Federal Government.

The national committee organized, selected a chairman and secretary and an executive committee, and appointed a state committee of nine strong men in each state of the Union.

It is the fixed policy of this committee that all presidents and secretaries of the various state medical societies shall be members of their respective state committees during their incumbency in office. From the first it was contemplated that at the proper time the organization of committees would be perfected in each county of the country. That time has now come and county committees are being rapidly organized.

In each instance the state committees are expected to select the county committees and to supervise their formation.

Name and Personnel of County Committees.

It is the fixed policy of the Committee of American Physicians for Medical Preparedness that the various important medical interests and activities of each county shall be represented on the county committees. This is done for the purpose of coordinating the important interests and activities so that the medical profession of the nation may present a compact and effective organization for the purpose of aiding effectively in the national defense. In order that this plan may be carried out with uniformity and precision throughout the country, the various state committees have been requested to have all county committees bear the following distinguishing name, to-wit: The Auxiliary Medical Defense Committee of .....County, in .....State. The state committees have also been requested to provide that the county committees shall include the following in their list of members:

1. All members of National Committee of the Comtee of American Physicians for Medical Preparedness, resident in the individual county.
2. Members of the State Committee resident in or near the individual county.
3. Representatives of the U. S. Army resident in the individual county.
4. Representatives of the U. S. Navy resident in the individual county.
5. Representatives of the U. S. Public Health Service resident in the individual county.
6. Representatives of the State Board of Medical Examiners residing in the individual county.
7. Representatives of the State or City Public Health Service.
8. Ranking medical officer of the National Guard.
9. President and Secretary of the local Medical Officers' Reserve Corps Association, if there should be such an organization.
10. Deans of medical schools.
11. President and Secretary of the County Medical Society.
12. President and Secretary of any other important medical societies.
13. Medical Director of the local Red Cross Units.
14. Other representative medical men.

DUTIES OF COUNTY COMMITTEES.

From time to time specific duties will be assigned to the various State and county committees. These duties will be in accord with the policy of the Council of National defense, and should be executed promptly and precisely by those who are called upon to co-operate in this manner with the Council of National Defense.

The committees will call to their assistance those who have been appointed field aids by their various state committees and such other physicians as they may desire to have co-operate with them.

Among the specific duties which the county committees are requested to perform at this time are the following:

First: That these committees co-operate with the National and State Committees of the Committee of American Physicians for Medical Preparedness in their efforts to gain needful information regarding the civilian medical resources of their own communities, and in their efforts to coordinate civilian medical activities for prompt mobilization in case of need.

Second: That they secure applicants:

(a) For the Army Medical Corps. If the President should call the full complement of troops already authorized by Congress, the Regular Army would need about 1,200 additional medical officers. If a million men should be called, a corresponding increase would be required.

(b) For the Medical Officers' Reserve Corps. If war should come, 20,000 to 30,000 medical Reserve officers should be enrolled.

(c) For the Naval Medical Corps which needs about 350 additional officers.

(d) For the Coast Defense Reserve Corps of the Navy. Several hundred high class reserve medical officers are desired.

(e) For the National Guard, such numbers as may be required to bring your local National Guard to full strength.

In the preparation for National Defense the first thing needed will be medical officers.

Physicians recommended for such service should be of the highest type. They should be free from suspicion of addiction to drugs or drink.

Medical Officers who go to field duty should by preference be under the age of forty-five.

Third: That they co-operate, individually and collectively, with the Medical Department of the Army, Navy and Public Health Service and with the Council of National Defense.

Fourth: That they co-operate with the Red Cross in their efforts to bring that organization to the highest point of efficiency.

COMMITTEE OF AMERICAN PHYSICIANS—ACTIVITIES ACCOMPLISHED AND IN PROGRESS.

On the 26th of April, 1916, the Executive Committee of the Committee of American Physicians tendered the services of the committee to the President of the United States. He expressed himself as being pleased with the patriotic tender of services and regretted that existing laws did not permit the acceptance by the Federal Government of gratuitous services. but stated that the matter would be referred to the Secretary of War and the Secretary of the Navy for the purpose of devising plans by which the good offices of the medical profession could be accepted and utilized to best effect by the Federal Government. He further stated that the plans would be referred to the Committee of American Physicians for comments and suggestions. The Executive Committee was permitted to make suggestions regarding the bill creating the Council of National Defense.

During the last year this Committee and its various subsidiary bodies have been actively engaged in formulating and carrying out various activities in conformity with the general plans for national defense, which have been undertaken by the Federal Government.

The splendid work done by the various state and other committees was of such extent and value that the Council of National Defense at its first meeting requested the Committee of American Physicians to continue their various activities under the guidance of the Council of National Defense, and asked the Secretary of the Committee of American Physicians to act as chief of the Medical Section of the Council of National Defense. Since that time the various activities have gone forward with renewed energy.

Some of the activities which have either been completed or are well under way, follow:

1st. Some 20,000 medical men selected from all parts of the country have been classified according to the training and the kinds of work which they do best.

2nd. An inventory of hospitals and other medical institutions is well under way.

3rd. It has been the fixed policy of the Committee of American Physicians to aid the American Red Cross in bringing its medical department to the highest point of efficiency. With that object in view, and in order to foster the spirit of co-operation, the members of the National Committee of the Committee of American Physicians accepted invitations to become members of the national committee of the medical department of the American Red Cross. In order further to promote the harmonious co-operation of the two organizations, most of the members of the various state committees of the Committee of American Physicians were also made members of the state committees of the American Red Cross. The various county committees will also be expected to co-operate in carrying out the plans of the two organizations.

4th. The establishment of military training for senior medical students in a large percentage of the high grade medical schools of the country.

5th. The establishment of more effective military training for hospital groups for members of the Medical Officers' Reserve Corps, for dental students, and others.

6th. The appointment of a Committee for the Standardization of Medical and Surgical Supplies and Equipment. The purpose of this work is to designate a list of articles essential to the successful conduct of civilian and military medical and surgical activities so that in the event that it should become necessary to curtail production all of the energies of the drug and instrument makers would be devoted to necessary articles rather than to those which are desirable but not essential. On this Standardization Committee are representatives of the Army, the Navy, the Public Health Service, the Red Cross, the Council of National Defense and a number of the most distinguished members of the various specialties of civilian medicine. In their work of coordination and standardization this Committee will take council with the manufacturers of the various supplies under consideration.

7th. Much valuable information supplied by medical and other observers who have worked in the war zones of Europe is being gathered and classified.

8th. The Presidents of important national medical organizations of the country have been requested to suggest to the medical section of the Council of National Defense the kinds of work which members of those organizations are best fitted to perform. and to suggest plans whereby their activities and resources might be utilized to best advantage. This request does not contemplate an inventory and organization of these resources. The purpose is that having received suggestions offered by the various organizations, those suggestions will be maturely considered and such as conform to the plans of the Council of National Defense and can be utilized to advantage, will be adopted. The various organizations will, in that case, be requested to cooperate fully and promptly in perfecting the plans of the Council of National Defense.

The foregoing memorandum embodies only a very small percentage of the problems now under consideration. It is neither wise nor desirable, however, to present them in detail at this time.

WISCONSIN SURGICAL SOCIETY.

PRELIMINARY PROGRAM.

WEDNESDAY, MAY 9TH.

CLINICS.

St. Mary's Hospital.

Dr. W. C. F. Witte
Dr. D. J. Hayes
Dr. G. V. I. Brown
.....2:00—3:00 P. M.

St. Joseph's Hospital.

Dr. F. Stratton .....9:00—11:00 A. M.
Dr. A. H. Levings.....2:00— 4:00 P. M.

Mt. Sinai Hospital.

Dr. J. L. Yates.....8:00—11:00 A. M.
Dr. S. J. Wetzler.....9:00—11:00 A. M.

Trinity Hospital.

Dr. Henderson .....10:00—12:00 A. M.
Dr. L. Tisdale ..... 8:00—10:00 A. M.

EVENING SESSION—8:00 P. M.

Hotel Wisconsin.

1. "Duodenal Ulcers in Infants—Report on Four Cases."
Dr. W. H. Bartram, Green Bay, Wis.
Discussion:
Dr. T. W. Nuzum, Janesville, Wis.
Dr. Edward Quick, Milwaukee, Wis.

2. "Acute Osteomyelitis of the Clavicle."
Dr. C. J. Habhegger, Watertown, Wis.
Discussion:
Dr. W. C. F. Witte, Milwaukee, Wis.
Dr. J. L. Yates, Milwaukee, Wis.

3. Subject to be announced in bulletin.
Dr. R. W. Jones, Wausau, Wis.

THURSDAY, MAY 10TH.

CLINICS.

St. Mary's Hospital.

Dr. G. V. I. Brown
Dr. D. J. Hayes
Dr. W. C. F. Witte
.....Time to be announced in bulletin

Mt. Sinai Hospital.

Dr. Edward Quick.....9:00—11:00 A. M.

Trinity Hospital.

Dr. M. N. Federspiel.....9:00—11:00 A. M.
Dr. Charles H. Lemon.....8:00—11:00 A. M.

St. Joseph's Hospital.

Dr. A. H. Levings.....8:00—11:00 A. M.
Dr. C. M. Echols.....2:00— 4:00 P. M.

EVENING SESSION—8:00 P. M.

Hotel Wisconsin.

Dinner and Joint Meeting with the Medical Society of Milwaukee County.

1. "The Present Status of Gastric and Duedenal Ulcer."
Drs. J. F. Pember and T. W. Nuzum, Janesville, Wis.

2. "Presurgical Stage of Gastric and Duodenal Ulcers."
Dr. William Ackermann, Milwaukee, Wis.

There will be a special bulletin issued daily. Register your arrival immediately at the Information Bureau at the Hotel Wisconsin, and receive the bulletins and such other information regarding the meeting as it is not now possible to publish. Tickets for the dinner will be presented to each member at the Registration Bureau, don't forget to call for yours.

CAMPAIGN AGAINST UNCLEAN DAIRY UTENSILS.

An active campaign against the unsterilized milk can, pail, strainer cloth, and separator, as contributing causes to high bacterial count in city milk, is to be carried on this season by the U. S. Department of Agriculture in cooperation with the health and milk officials of a number of cities. Already health officers in 150 localities have accepted the department's offer to demonstrate to their local milk producers a simple homemade sterilizer, costing not more than $15, which if used on the farm will help guard the milk against this initial and serious contamination. How great a bearing sterilization of milk utensils on the farm has on the bacterial content of milk is shown by experiments which have proved that the average milk can, when washed in the ordinary way, may contain over eight billion bacteria, and that almost every milk can so treated harbors millions of bacteria which give a high bacterial count and hastens the souring of milk.

The homemade sterilizer for dairy utensils which is to be demonstrated uses steam as a sterilizing agent. All that is required to develop steam enough to sterilize the ordinary dairy utensils is a two-burner kerosene stove, and there is nothing about the device which calls for special skill in its effective use. The department has twenty of these sterilizers, described in Farmers' Bulletin 748, and has offered to supply an outfit for a two-weeks' demonstration to any local health or dairy official who will agree to show it in operation to the milk producers in his section.

The effectiveness of this sterilizer has been fully proved both in the laboratory and on the farm. In one experiment 10 gallons of fresh milk were divided into two parts. Five gallons, passed through a separator into a 5-gallon can, both utensils washed in the ordinary way, showed at the end of an hour 1.880,000 bacteria per cubic centimeter. The other 5 gallons, passed through a separator into a can, after both utensils has been washed and sterilized by means of the homemade sterilizer, showed only 24,000 bacteria per cubic centimeter.

The device, moreover, removes foul odors and leaves the utensils dry as well as sterilized. Experience shows that the bacterial count is thus materially reduced, while the producer finds that his milk does not sour so quickly and has an improved flavor.

The specialists of the Dairy Division are hopeful that the device, wherever it is demonstrated, will come into common use. It is believed that this sterilizer will find ready adoption among small dairymen because of its low cost of construction and operation, and because its use will tend to improve the quality and increase the keeping

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THE SURGEON AND THE LABORATORY.

Among the factors which contribute materially to successful surgery one of the most important is the preparation of the patient for operation. In its broader, present-day sense, this demands far more than it did in the past. It implies a thorough investigation and analysis of every

feature of the case and the elimination, as far as possible, of all elements that might militate against recovery. To accomplish this object the individual and not merely the disease that is to be attacked must be submitted to the most searching scrutiny. To be forewarned is to be forearmed, and the surgeon who has familiarized himself with the physical and psychical state of the patient will be in a much better position to minimize the risks and increase the efficiency of his work. Except in cases of emergency, there is usually sufficient time to supplant the routine examinations of the blood and urine, the determination of the blood pressure, etc., by various other tests which often furnish exceedingly valuable information. Two instances will suffice. It is no exaggeration to say that the test for the presence of acidosis has become well-nigh indispensable, since this condition has been found to exercise a very baneful influence in operative cases by promoting shock, enhancing the risks of anesthesia, and impeding the reparative process. For determining the degree of acidosis the estimation of the carbonic acid tension of the alveolar air has been recommended as furnishing more reliable data than examination of the urine for acetone bodies, although, according to Crile, the rate of frequency of the respiratory exchanges, which are increased even when the patient is at rest, is a still more reliable indicator. In view of the fact that an acid toxemia is associated with various surgical conditions, such as cancer and exophthalmic goiter, the possibility of its existence in the individual case should never be overlooked. Another important factor that has a direct bearing upon the outcome of an operation is syphilis. So many persons are unconscious victims of this disease, its manifestations having been so slight as to escape their notice or memory, or so obscure as to elude the observation of the physician, that it has become important and even imperative to make Wassermann tests in major surgical cases. To rely upon the history or upon the clinical signs is no longer tenable. No stronger evidence can be adduced in support of this contention than the recent investigations of Vedder, who obtained a positive Wassermann reaction in 5 per cent. of the West Point cadet corps, although clinical examination had been completely negative, and who found that 20 per cent. of the apparently healthy applicants for enlistment in the army reacted positively to this test. In an article on "Syphilis From the Standpoint of the Surgeon," in the October issue of the Therapeutic Gazette. Prof. Edward Martin tells us that in 100 cases taken at random from Dr. Stengel's medical ward in the University Hospital, Philadelphia, where it is customary to examine all admittances for the Wassermann reaction, the results were positive in 19, and in but two of these might it have been possible to make a diagnosis of lues from the clinical manifestations. From these observations and others equally convincing in the literature, it appears that there must be a large number of cases of syphilis which can be diagnosed only by the modern laboratory methods. That the presence of this disease even in a latent, hidden or masked form may materially modify the prognosis of an operation no one will deny. As has been recently pointed out by Lourdel, an army surgeon (the Lancet), wounds in syphillitic subjects cicatrize slowly, prolonged suppuration is common after joint injuries, and fistulous tracts are liable to result, while secondary hemorrhage may occur from slight causes. Dr. W. Senger (Colorado Medicine, July, 1916), urges that in all operations of necessity and choice a Wassermann test should be made as soon as possible, and if positive, treatment instituted at once when indicated. In over 30 per cent. of medical and surgical cases presenting complications that could not be easily explained, a positive reaction was obtained. According to his observations the majority of stitch abscesses after supposedly aseptic operations are to be considered as a syphilitic complication. The unfavorable influence of syphilis in preventing union of bones after fractures or operations is too well known to require more than mention. The practical significance of all this evidence may be summed up as follows: (1) Before referring a case to the surgeon for treatment the physician should fortify his diagnosis by a Wassermann test. Syphilis is a great mimic; it may masquerade in the guise of tuberculosis and cancer, for instance; therefore in doubtful conditions its timely recognition may obviate the necessity of surgical intervention. (2) In all operations of choice, or even of necessity, if time permits, this test should become a part of the routine of preparation of the patient. If positive results are obtained, it will often be advisable to delay operation until anti-syphilitic treatment has been instituted, in order to avoid errors in diagnosis or to prevent post-operative complications, such as non-union after operations on bones or joints. (3) In cases of imperative surgery, where it may not be possible to resort to a Wassermann examination before operation, its performance during the early post-operative stage will frequently prove of immense value, since, if positive, it will enable the surgeon to anticipate certain complications and take the proper measures for their prevention.—*Editorial in International Journal of Surgery.*

PASSING OF THE LANCET CLINIC.

The Cincinnati Lancet Clinic, which for several decades has held a commanding position in the field of medical journalism, has discontinued publication.

Many causes contributed to its demise. The recent excessive increase in the cost of printing, and particularly in the cost of white paper, was probably the immediate factor. Another important cause, which in itself reflects great credit upon the men who were responsible for this excellent journal, is the fact that some months ago its management placed its advertising on a high plane. The professional men who backed the Lancet Clinic know that off-color advertising is not compatible with the type of journal they should produce. Their arbitrary action, however, decreased their revenues more than 50 per cent. Our Journal suffered a similar financial loss two years ago, but was enabled to weather the storm by dividing the deficit among our 4,000 members. The brunt of the loss sustained by the Lancet Clinic fell on the shoulders of some forty men.—*The Ohio State Medical Journal.*

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1915-16

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ROCK SLEYSTER, Waupun

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Alternates

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T. W. NUZUM, Janesville

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NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917

The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

County.	President.	Secretary.
Ashland-Bayfield-Iron	C. J. Smiles, Ashland	O. Braun, Ashland.
Barron-Polk-Washburn-Sawyer-Burnett	H. M. Coleman, Barron	I. G. Babcock, Cumberland.
Brown-Kewaunee	I. E. Levitas, Green Bay	E. G. Nadeau, Green Bay.
Calumet	E. L. Bolton, Chilton	C. L. R. McCollum, Forest Junction.
Chippewa	C. W. Wilkowski, Chippewa Falls	F. T. McHugh, Chippewa Falls.
Clark	H. H. Christofferson, Colby	E. L. Bradbury, Neillsville.
Columbia	O. O. Force, Pardeeville	A. F. Schmeling, Columbus.
Crawford	C. B. Lumsford, Gays Mills	A. J. McDowell, Soldiers Grove.
Dane	Frank Drake, Mendota	L. H. Prince, Madison.
Dodge	R. E. Bachhuber, Mayville	F. S. Elliott, Fox Lake.
Door	H. C. Sibree	T. C. Proctor, Sturgeon Bay.
Douglas	D. R. Searle, Superior	L. A. Potter, Superior.
Dunn-Pepin	A. F. Heising, Menomonie	I. V. Grannis, Menomonie.
Eau Claire	H. F. Derge, Eau Claire	L. H. Flynn, Eau Claire.
Fond du Lac	G. B. McKnight, Fond du Lac	F. M. McGauley, Fond du Lac.
Grant	J. C. Doolittle, Lancaster	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Wiesender, Berlin.
Iowa	G. H. McCallister, Avoca	J. R. Hughes, Dodgeville.
Jefferson	A. A. Busse, Jefferson	W. A. Engsberg, Lake Mills.
Juneau	Brand Starnes, Mauston	A. T. Gregory, Elroy.
Kenosha	C. R. Caughey, Kenosha	J. F. Hastings, Kenosha.
La Crosse	G. W. Lueck, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill
Manitowoc	J. F. Pritchard, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	W. A. Green, Wausau	F. H. Frey, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	Luella E. Axtell, Marinette.
Milwaukee	P. F. Rogers, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. R. Bell, Tomah	Spencer D. Beebe, Sparta.
Oconto	C. W. Stoelting, Oconto	T. C. Clarke, Oconto
Oneida-Forest-Vilas	W. C. Bennet, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	G. A. Ritchie, Appleton	M. E. Rideout, Appleton.
Ozaukee	E. E. Coerper, Fredonia	C. E. Balkwill, Grafton.
Pierce	W. A. Lumley, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	J. H. Hogan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	Gideon Benson, Richland Center.
Rock	T. W. Nuzum, Janesville	E. B. Brown, Beloit.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	W. H. Cantwell, Shawano.
Sheboygan	Otho Fiedler, Sheboygan	C. N. Sonnenburg, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	O. H. Epley, New Richmond.
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	C. F. Peterson, Independence.
Vernon	J. K. Schreiner, Westby	F. E. Morley, Viroqua.
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Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	H. A. Peters, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	J. W. Lockhart, Oshkosh	E. H. Hunt, Oshkosh.
Wood	Ed. Hougen, Grand Rapids	W. M. Ruckle, Grand Rapids.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE.

Brown-Kewaunee Medical Society on February 14th, 1917, elected the following officers: president, Dr. I. E. Levitas, Green Bay; vice-president, Dr. D. H. Gregory, DePere; secretary-treasurer, Dr. E. F. Nadeau, Green Bay; delegate, Dr. D. F. Gosin, Green Bay; censor, Dr. W. E. Leaper, Green Bay.

CALUMET COUNTY

Calumet County Medical Society at New Holstein, at the Calumet Club, March 5th. Dr. N. P. Mills, Appleton, addressed the meeting on "Acute Conditions of the Abdomen." After the meeting a supper was served. Those who attended were: Drs. N. J. Knauf, E. L. Bolton, E. T. Rothert, J. P. Harkens, F. P. Knauf, A. J. Berger, William Krahn, W. C. Schmitz, and C. L. R. MacCollum, leaving but three absent members.

C. L. R. MacCollum, M. D., *Sec'y-Treas.*

DANE COUNTY

Dane County Medical Society held its regular meeting at Madison, March 13, 1917. The meeting was held in the auditorium of the Biological Building, at 8 o'clock. The feature of the evening was an exhibition of moving pictures of the manufacture of serums and antitoxins. The proposed medical bills before the legislature were discussed.

FOND DU LAC COUNTY

The regular bi-monthly meeting of the Fond du Lac County Medical Society was held at "The Palmer" on March 14, 1917. Dinner was served at 6:45. Dr. W. F. Lorenz of the Wisconsin Psychiatric Institute talked on "Syphilis of the Central Nervous System, its Diagnosis and Treatment."

EAU CLAIRE COUNTY

The regular monthly meeting of the Eau Claire County Medical Society was held at the Galloway House on February 27th, about thirty members being present. After a dinner Dr. J. Van de Erve of Milwaukee addressed the Society.

MARINETTE-FLORENCE COUNTY

On February 21st Marinette-Florence County Medical Society was honored by the presence of Dr. J. S. Evans, professor of Clinical Medicine, University of Wisconsin. His lecture on "Modern Ideas of the Invasion of Microorganisms" proved a treat. He covered a vast amount of detail and yet was remarkably clear and forceful. No society will be disappointed in this lecture. It reaches out into new thought and yet helps the listener to classify and unify what he already knows of the subject. An enthusiastic vote of thanks was given Dr. Evans at the close of this lecture.

The Marinette-Florence County Medical Society enjoyed a social hour and supper with Dr. C. R. Bardeen, of the University of Wisconsin, at the Hotel Marinette, March 14, 1917. In the evening the regular meeting was held in the hotel parlors, Dr. H. F. Schroeder, presiding. Routine business was dispensed with, correspondence only receiving attention. A communication from State Secretary Sleyster commending the society for promptness in meeting its obligations was read, and a letter from the Committee on Public Policy and Legislation urging a remonstrance against a bill now in the State Senate Committee, which provides that hospitals shall be forced under all circumstances to admit all patients applying, and the patients of all physicians applying for admission, provided only payment is offered therefor. Dr. C. R. Bardeen was called upon to explain the intent of the bill and why it should not pass.

This was done to the satisfaction of the society, it appearing that the bill was framed to satisfy a personal grievance. Dr. Bardeen also explained the unfairness to the hospital of forcing it to admit patients when conditions were such as to injure the service and reputation of the hospital by so doing. On vote of the Society, the secretary was instructed to write our senator in behalf of the society protesting against the bill and asking him to use his vote and influence against it.

The lecture of the evening by Dr. C. R. Bardeen was on "Recent Practical Advances in the Topographical Anatomy of the Thorax." Dr. Bardeen's address was illustrated by roentgenograms and drawings, and gave conclusions based on a large amount of careful systematic X-ray demonstrations. It emphasized the complementary relation of X-ray and clinical deductions, and also left a definite picture of the anatomy of the heart, which no amount of text book work, ordinary diagramatical studies, or even dissections of the cadaver could impart. It was an old subject in a new dress, but a transforming one.

The Society gave Dr. Bardeen a vote of thanks for his splendid and helpful address. The spirited discussion which followed emphasized its many salient points and brought out many queries which Dr. Bardeen answered.

Adjourned.

Luella E. Axtell, M. D., *Secretary.*

ONEIDA-FOREST-VILAS COUNTY

The Oneida-Forest-Vilas County Medical Society, which has been inactive for about six years, held a meeting and election of officers recently. Dr. Bennett was elected president and Dr. C. A. Richards, secretary. The society will hold meetings in the State Hygienic Laboratory at Rhinelander.

OUTAGAMIE COUNTY.

A business meeting of the Outagamie County Medical Society was held at the Randolph Hotel, Appleton, on March 15th. A banquet was served at 6:30. Drs. James R. Scott and W. N. Moore, who have been on the border during the summer, talked of their experiences.

TREMPEALEAU-JACKSON-BUFFALO COUNTY

During the March meeting of the Trempealeau-Jackson-Buffalo County Medical Society the following officers were elected: prsident, Dr. G. F. Stack, Independence; secretary-treasurer, Dr. C. F. Peterson, Independence.

The meeting of January 31st was a very interesting one. It was held at the Arlington Club, Winona, Minn. The profession of Winona joined us at this session. Dr. Edward Evans of La Crosse read a paper on "The Hospital, a Social Problem." The meeting was followed by a luncheon and smoker. Twenty physicians were present.

The physicians of Rice Lake have organized the Rice Lake Medical Club with all physicians of the city as members. Dr. T. A. Charron is president, and Dr. J. E. Knapp, secretary of the club.

TRI-STATE DISTRICT MEDICAL SOCIETY.

The territory covered by the Tri-State District Medical Society this year is composed of sixteen counties in Wisconsin, fifteen in Iowa and fifteen in Illinois. The Wisconsin counties are: Dane, Green, Lafayette, Rock, Iowa, Grant, Columbia, Crawford, Dodge, Jefferson, Richland, Sauk, Walworth, Waukesha, Washington and Vernon. The honorary members of the advisory board are the presidents and secretaries of the three State Medical Societies and the Editors of the State Journals. The active members are the councilors, presidents and secretaries of the county societies within the districts of the organization. The annual scientific and clinical meeting will be held this year at Dubuque, Iowa. The date has not yet been fixed. Last year's meeting was held at Freeport and consisted of nine counties in Wisconsin, nine in Illinois and five in Iowa. On account of the large attendance and the enthusiasm displayed at this meeting it was decided to change the name from "Confederation of County Medical Societies" to "Tri-State District Medical Society," and enlarge the territory to a considerable extent.

This organization is primarily a confederation of county medical societies banded together for a true fraternal and professional spirit as well as scientific and research work. We feel that this association is destined to become one of the finest medical organizations in the middle west. Dr. W. B. Peck, Freeport, Ill., is president, and Dr. N. C. Phillips, Freeport, Ill., is secretary.

NEWS ITEMS AND PERSONALS.

The following have been appointed by the Council of National Defense as a Committee on Medical Preparedness for Wisconsin: Edward Evans, Chairman, La Crosse; Hoyt E. Dearholt, Milwaukee; G. V. I. Brown, Milwaukee; F. Gregory Connell, Oshkosh; R. H. Jackson, Madison; J. R. McDill, Milwaukee; W. T. Sarles, Sparta; J. L. Yates, Milwaukee; and Rock Sleyster, Secretary, Waupun. A meeting of the committee was held in Milwaukee March 21st, and plans made for the organization in each county of the state of a local committee to be known as "The Auxillary Medical Defense Committee of ———— County". A campaign is being made to enlist every qualified physician in the state under the age of fifty-five in the Medical Reserve Corps. Members of the state society who come within these requirements are requested to communicate with the secretary of their county medical society.

The Wisconsin Federation of Women's Clubs, the Anti-Tuberculosis Association University Extension Department, and the Public Health and Library Commission are planning a Baby Week Campaign to be held in the near future. The success of the series of exhibitions last year accompanied by lectures and demonstrations encourages the promoters to look for large attendances and wide interest. The medical profession has taken an active part in the campaign in the past and it is expected that they will lend valuable assistance in this year's work.

THE NATIONAL CONFERENCE OF CHARITIES AND CORRECTION.

A realization of the importance of health seems to have spread through the program of the National Conferences of Charities and Correction like an infection. The outline of discussions at the forty-fourth annual meeting of the organization, to be held at Pittsburgh June 6-13, has just been issued from the permanent office at Chicago. The division on health will be under the chairmanship of Professor C. E. A. Winslow of Yale University, and the vice chairmanship of Dr. H. M. Bracken, secretary of the Minnesota State Board of Health.

The modern public health program will be featured by the chairman in his address. This idea seems to characterize also the discussions scheduled to occur at four other meetings under his direction. "What the Social Worker has done for Public Health" will be the topic of Homer Folks of New York, a former president of the National Conference.

The campaign against infant mortality will be brought to the attention of the conference by Miss Julia C. Lathrop of the Federal Children's Bureau,

and Dr. Charles E. Terry, late health officer of Jacksonville, Fla. Professor Graham Lusk of Cornell University Medical College will speak on hygiene and economy in diet. Co-ordination of health activities appears prominently in the program outline. Three phases will be presented, respectively, by Franz Schneider, Jr., and Gertrude Seymour of New York, and Wilbur C. Phillips of Washington; the apportionment of the health budget, the relation between social workers and public officials and the health center plan. Another session will be devoted to public health nursing.

"The United States is the only great industrial nation without compulsory health insurance", Professor Irving Fisher has said recently. In view of this need, the National Conference has provided an entire division on the subject of social insurance for its meetings at Pittsburgh. The chairman of this series of discussions is Max Senior of Cincinnati. The program has been arranged to occur the latter part of the conference period so as to accommodate medical men who attend the meeting of the American Medical Association in New York.

The section on mental hygiene will convene under the chairmanship of Dr. Owen Copp of Philadelphia. His speakers include Dr. Stuart Paton of Princeton, Dr. E. E. Southard and Dr. Harry C. Solomon of Boston, Dr. C. Macfie Campbell of Johns Hopkins University, Dr. A. J. Rosanoff of New York, and Dr. E. Bosworth McCready of Pittsburgh.

In other divisions of this extensive program there will occur discussions of illegitimacy, of diagnosis of crime, of state aid to dependent mothers and of Negro migration to northern cities. There will be separate meetings of groups interested in hospital social service in social hygiene, and in anti-tuberculosis work. It is likely also that a special housing institute will be held.

The conference at Pittsburgh will continue for one week. Thirty-five hundred delegates are expected to attend. The president is Frederic Almy, secretary of the Charity Organization Society of Buffalo. The prevention of human distress through the operation of all sorts of agencies has been adopted as the main topic of the meeting.

The staff of St. Joseph's Hospital of Milwaukee, Wis., has organized a Diagnostic Department for the purpose of making diagnoses and outlining treatment in obscure cases.

It is the intention of the Diagnostic Department to receive patients into St. Joseph's Hospital for a few days during the examination. On entrance, they will be referred as nearly as possible to their special department, which will be privileged to call in consultation any or all members of the Staff.

All laboratory tests, necessary for a diagnosis will be made, and when an examination is completed and a diagnosis made the patient will be returned to his Physician that referred the case with a written report of the findings and an outline suggesting treatment.

Dr. Martin I. Olsen, Madison, has been appointed Medical Director of the Iowa Central Life Insurance Company, and has removed to Des Moines.

Dr. Homer M. Carter has located at Madison, and will occupy the offices recently vacated by Dr. Olsen.

Dr. A. T. Johnson, interne at St. Mary's Hospital, Madison, has gone to Sauk City, where he will practice.

Dr. Charles Gorst, Madison, who has been laid up with a fractured leg, has recovered and resumed his practice.

Dr. Henry C. Werner, Fond du Lac, has been appointed head of the new State Home for Feeble-minded at Union Grove.

Dr. Joseph P. Donovan, who retired as city health officer of Madison, February 1, after a service of thirteen years, was given a testimonial of thanks and appreciation by the Board of Health at its meeting on Feb. 16.

Dr. A. P. Andrus, Ashland, has accepted the position of assistant superintendent at the State Tuberculosis Sanatorium.

Dr. J. J. Powell, city health officer of Galesville, is a victim of septic sore throat. An epidemic of this disease is prevalent in Galesville.

Dr. L. G. Armstrong, Boscobel, recently celebrated the 83rd anniversary of his birth. Dr. Armstrong has practiced at Boscobel for 51 years, and has been school clerk for that city for forty years.

The residence of Dr. J. F. Wood, Darien, was completely destroyed by fire on March 8th. No insurance was carried and the loss is estimated at about $8,000.

Dr. Geo. V. I. Brown has been elected president of the Milwaukee County section of the Medical Officers' Reserve Corps. Dr. Max Bornstein has been named secretary of the organization.

Dr. J. E. Block, for several years located at Dundee, has discontinued his practice, and sailed for London to work in one of the hospitals.

Dr. C. L. Story, Whitehall, has been appointed to a position as orthopedic surgeon in a British Military Hospital.

Dr. Oscar Lotz, Milwaukee, has been appointed to fill the unexpired term on the State Board of Medical Examiners, caused by the resignation of Dr. John Beffel, Milwaukee.

Dr. Clarence A. Richards, Rhinelander, has been appointed a member of the State Board of Health, to succeed Dr. H. A. Meilike, Clintonville, whose term has expired.

Dr. James R. Barnett, Jr., Neenah, has been appointed supreme medical examiner of the Equitable Fraternal Union, succeeding his father, the late Dr. James R. Barnett.

Dr. R. L. Egan, Muscoda, has formed a partnership with Dr. Bertha Reynolds, at Lone Rock. Dr. Egan takes over the practice of Dr. Elmer Hoffman, recently removed to Windsor.

Dr. Francis B. McMahon, who recently completed a three years' fellowship in surgery at the Mayo Clinic, has become associated with Dr. Joseph P. McMahon, Milwaukee, for the practice of Obstetrics, Gynecology and Surgery.

Dr. J. R. McDill, Milwaukee, in charge of one of the units of the American physicians' expedition of New York, and for several months director of surgical work in a base hospital back of the Russian front at Graudens, has returned to Milwaukee.

Dr. A. A. Krygier, Milwaukee, was exonerated in Civil Court, in an action instituted by Mrs. Estelle Zawacki against the physician and the Good Samaritan Hospital, for alleged improper treatment during her confinement in the institution.

Drs. Warren B. Hill and W. F. Malone and the Hanover Hospital, Milwaukee, are made defendants in a suit filed in Circuit Court by Catherine Adams, who claims improper care while at the hospital. Damages are claimed to the extent of $30,000.

Dr. Andrew J. Weber, Milwaukee, is being sued for damages to the amount of $10,000. Catherine Voigt charges the physician with making an improper diagnosis, following it with an operation which proved unnecessary, and which seriously affected her health.

Dr. C. I. Shoop has presented the city of Racine with a sixty-five acre tract of land, located along the shore of Lake Michigan, for park purposes.

Dr. A. H. Little, Milwaukee, was sentenced to five years in the state prison at Waupun, on a charge of manslaughter in connection with the death of a young woman. The court at the same time revoked the license of the physician.

Some six or seven seniors of Marquette University, Medical Department, will take the examinations at the Great Lakes Station for Federal Service. The successful candidates will be graduated at an early date prior to active service in the Naval Reserve Force. Twelve members of the Freshman class, and an equal number from the Sophomore and Junior classes have joined the Red Cross organization in connection with the Base Hospital at Milwaukee.

The Rice Lake Hospital at Rice Lake was taken over by the Catholic Sisters about the first of the year.

The formal opening of the Frederic Hospital, Frederic, Wis., took place on March 15th. Drs. Arveson and Diamond are in charge.

The Mt. Horeb General Hospital Association has filed articles of incorporation. The object of the association is to establish and maintain a general hospital at Mt. Horeb.

Plans for the new addition of St. Nicholas Hospital, Green Bay, have been completed. The new addition will be 45 by 83, basement and three stories, and will cost approximately $60,000.

Kenosha's city council has appropriated $20,000 toward the cost of an isolation hospital to be operated in connection with Kenosha Hospital.

$100,000 of the $150,000 required to obtain a similar sum from Mr. and Mrs. Ferdinand Schlesinger of Milwaukee, for the Milwaukee Children's Free Hospital, has already been raised.

The name of St. Olaf's Hospital, Superior, has been changed to the Martin Luther Hospital.

The addition to St. Vincent's Hospital, Green Bay, erected at a cost of $75,000, was opened to patients on March 8th.

St. Joseph's Hospital, Portage, was opened to patients during March.

Sacred Heart Hospital, Eau Claire, plans building a $75,000 addition in the near future.

St. Joseph's Hospital, Marshfield, has begun the building of a new addition. The addition will be 40 by 128 feet and four stories in height.

Foes of the proposed La Crosse County Tuberculosis Sanatorium, ordered erected by the county board after a long campaign, have retained attorneys to begin proceedings to stop the project for which bonds are being issued. They allege that the matter was railroaded through the county board in an irregular manner.

The third annual convention of the Catholic Hospital Association will be held in Chicago, Aug. 29-31. This association held its first two conventions in Milwaukee. At its last meeting more than one-third of the Catholic Hospitals of the country were represented. Several hospitals of Canada are members of the association. Regent C. B. Moulinier, S. J., is president of the association.

The Beloit Sanitarium, an institution for the treatment of nervous diseases, will shortly be opened at Beloit by Dr. D. R. Connell.

The Marathon County Tuberculosis Sanatorium was recently opened to patients. The building was erected at a cost of $80,000 and can take care of forty patients.

The Oshkosh Board of Education has made arrangements for the establishment of a Dental Clinic. Members of the Oshkosh Dental Society will have charge of the work.

Senator Pullen of Fond du Lac has introduced into the legislature a number of bills on health topics. One provides that children be sent home from school who are unclean or infested with vermin, another provides for a health certificate as a preliminary for a marriage license for all persons who have been afflicted with venereal disease, while a third provides for the reporting of venereal diseases to the public health authorities.

Milwaukee plans to license spring water companies distributing water in that city. An ordinance now under consideration by the council provides that water companies be placed under the supervision of the health department, imposes restrictions on the manner of bottling, handling and sale, and allows revocation of license for cause.

The total number of cases of scarlet fever in Milwaukee on March 20 was 607.

Knowlton, near Stevens Point, has an epidemic of scarlet fever and the schools are closed.

The scarlet fever epidemic at Sturgeon Bay is showing much improvement.

Wautoma, Wis., has ten cases of scarlet fever. The schools of this place are closed.

Galesville has an epidemic of septic sore throat. Eleven deaths have been reported. The cause is traced to impure milk.

Anticipating the spread of infantile paralysis in Wisconsin next summer, the four laboratories of hygiene, affiliated with the state board of health, will aid in diagnosing the disease in all cases where desired. The spinal fluid will be examined by these laboratories whenever submitted. The state laboratory is located at Madison, the branch at Rhine-

lander, and the co-operative laboratories at Superior and Fond du Lac.

Trained nurses are no longer permitted to administer an anesthetic in Kentucky, even when working under the direct supervision of a surgeon, according to a recent decision of the Kentucky Court of Appeals. Only those persons regularly licensed as physicians will be allowed to undertake this task.

The Board of Education at Stevens Point has discontinued the services of its visiting nurse.

The National Tuberculosis Association has announced that the holiday sale of Red Cross Christmas seals has raised $1,000,000 for the tuberculosis campaign.

The Bulletin of the National Association for the Study and Prevention of Tuberculosis publishes for March a number of fresh air games for children, plans for a county hospital and for the Red Cross Seal Sale of 1917, also the report of the Clothing Committee of the Boston Association.

France is organizing to combat the spread of tuberculosis after the war among men who have been weakened by campaigning. There are about 100,000 men in the army with this disease, of whom about 80,000 have been sent home. At least 100,000 more will come back from the German prison camps with this disease, and a chain of national sanatoriums is proposed to deal with this plague.

The United States Census Bureau has recently published its long expected special report on the cancer mortality statistics of the United States registration area and its subdivisions, including the states, counties and principal cities, for the year 1914. The report can be obtained by writing to the Director of the Census, Washington, D. C.

The American Society for the Control of Cancer has sent a letter to the secretaries of all state associations, in which it recommends that each society appoint a cancer committee, if such action has not already been taken; that such committee be continued in office for a term of at least three to five years, the chief function of such committee being the cancer education of the physician. It is suggested that this committee constantly stimulate up-to-date consideration of the cancer problem within professional circles. Particular attention is called to the report of the committee on "Free Tumor Diagnosis as a Function of the State Public Health Laboratories." Reports of the work of existing cancer committees such as those in Pennsylvania, Texas, North Carolina and elsewhere, are available as the basis of concrete suggestions.

Among the Rockefeller Foundation appropriations made during the year ending December 31, 1916, are the following: Johns Hopkins University —for the establishment and maintenance of a School of Hygiene and Public Health—$267,000; to defray for one year the cost of a proposed Psychiatric Department for the examination of prisoners at Sing Sing prison—$10,000; New York Committee on after care of Infantile Paralysis Cases—$25,000; New York City Health Department, for use in controlling the epidemic of infantile paralysis—$50,000.

According to a bulletin issued by the Bureau of Foreign and Domestic Commerce, of the Department of Commerce, China will soon be the greatest market in the world for proprietary medicines, and calls the attention of American manufacturers to the advantages of getting a good foothold in the market at once.

REMOVALS

Dr. Elmer Hoffman, Lone Rock to Windsor.

Dr. Ernest C. Couch, Clintonville to Milwaukee.

Dr. J. E. Newton, Windsor to Hudson.

Dr. John M. Conroy, New Lisbon to Nopeming Sanitarium, Nopeming, Minn.

Dr. W. Lyons, Kenosha to Cazenovia.

Dr. A. Roos, Oshkosh to Chicago.

Dr. M. G. Violet of Fond du Lac has removed to Waterford, and has taken over the practice of Dr. Carberry. Dr. Carberry has located in Iowa.

Dr. P. M. Ross, Granton, has disposed of his practice to Dr. G. F. Murphy of Junction City. Dr. G. W. Reis of Star Prairie succeeds Dr. Murphy at Junction City.

Dr. E. A. Worden, for the past fourteen years located at De Pere, will leave that city May 1, for New York.

MARRIAGES

Dr. D. H. Jeffers and Miss Lucretia Van Zandt, both of West Salem, on March 6th.

Mr. Daniel Coleman and Dr. Margaret B. Wermerskirchen, both of Milwaukee, on March 2d.

Dr. Merritt LaCount Jones, Wausau and Miss Grace Hayward Ivers, Cambridge, Mass., on March 21.

DEATHS

Dr. Oramon Weed Burns, Winneconne, Wis., died at his home on January 17, 1917, of heart disease, aged 66 years. He was a graduate of Dartsmouth Medical School, Hanover, N. H., in 1877. He was a member of Winnebago County and the State Medical Societies.

Dr. Moses J. White, former head of the Milwaukee Hospital for the Insane, died at Hartford, Conn., on March 16, aged 57 years.

Moses James White was born at Hartford, Conn., February 28, 1860. He attended the graded and high schools of that city, Princeton University and LaFayette College. Received his medical education in the medical department of the University of New York, obtaining his degree in March, 1884. From 1884 to 1887 he served as assistant physician in Manhattan Hospital for the Insane in New York. In 1887 he came to Milwaukee as assistant physician at the Milwaukee Hospital for the Insane. After serving a year in this capacity, he was appointed head of the institution, and held this office until a year ago. Dr. White was professor of mental diseases in the old Wisconsin College, and also held this chair at Marquette University.

He was a member of Milwaukee County and the State Medical Societies.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

PRIVATE DUTY NURSING.*

BY ANNA J. HASWELL,

MADISON, WIS.

For many years many things have been burning within me which I have desired to say in regard to private duty nursing. It is, and always will be, one of the greatest departments of our profession—and the reason for this is obvious. Sickness always has and always must sooner or later come to every home and the private duty nurse must be relied upon to fill her place in caring for the sick there or as a special nurse in the hospital. The private duty nurse should not enter that department of nursing because at her graduation it appeals to her as the one of least resistance, nor because an institution position is not open to her. The nursing profession is large today, and the avenues of service so many that it behooves every nurse to consider well the special line of duty she desires to pursue, and having chosen that which most appeals to her, make her part in it of inestimable value to her profession, and herself indispensable to those whom she serves.

One is reminded of the remarks frequently made of a particularly, attractive unmarried woman—"Why how is it that a woman of so much ability and charm should not be gracing her own home?" So sometimes it is thought strange that a nurse of fine ability should be in private duty in place of filling a position of responsibility in a hospital or as school nurse, visiting nurse, public health work or one of the many other splendid departments of service open to our profession. Many are the papers which have been written which have shown in bold relief all the unpleasant sides of private duty, but tell me why we emphasize them when they are at the very most only incidental to what really counts in our work? Let us today look first at the *field* of one who is in private duty service, and recognize some of the possibilities open to her.

A nurse desiring to do private duty should first of all carefully choose the place where she wants

*Read at the annual meeting of the Wisconsin State Nurses' Association, October, 1916, Milwaukee.

the headquarters for her practice, and if she is worthy the confidence of the people she must know that the physicians and surgeons of that place are men of character and ability, because a nurse at her best must have confidence in those who are to direct her. Having this belief, she puts herself in readiness to do their bidding and give to their patients conscientious, faithful and skillful attention. She does not need to seek her work because the need is so great that the constant demand far exceeds the number of nurses for the service. What does this mean? This means that from many of the choicest homes the call comes to care for some member of the family. This may be at a time of some acute disease, or where for weeks or months a nurse is needed. It may be to care for one following an operation. It may be where both the anxiety and happiness incident to the advent of a new life is there in the home. Whatever it may be, the nurse should meet her work with sympathetic calmness and skill, which should make her indispensable, so that having been in the home once, she is, after the physician, the first one wanted to come to the rescue and give her aid.

Her field is large. It includes the homes in the city or town, where the nurse chooses to locate. It also includes the homes in the surrounding country and in the towns for many miles around. It is a blot upon the record of private duty nurses that there are those among us who do not have this vision of their field and when calls to service come, refuse the work if the call is to the country or small town where modern comforts cannot always be assured for them. I say this, because I know it is true. Some even refuse in their own city to go to a private home, and accept only calls which take them to a hospital.

This narrow conception of her field, limits her opportunities for service and closes the doors to her own advancement. It is my belief that a nurse in private duty should keep in close touch with the work done by visiting nurses, school nurses, social service workers and charitable organizations. She should be in the first rank of those whose aim it is to *prevent* disease, both by precept and example. In any contagious disease, she should *know* that she is following in every detail the methods which will most surely protect those not afflicted with the disease. A slight wound on some one in the home which might go as "just a scratch" and later develop as a serious infection, should by her, if not otherwise cared for, receive the necessary aseptic treatment. So-called colds may often be arrested by a good cathartic and free kidney elimination and a private duty nurse should feel it her duty to know that slight ailments receive attention before there is serious trouble. The so-called lump in the breast should tactfully be brought to the attention of the only one who by exterminating it can avoid for the patient possibly years of suffering,—and the successful nurse will recognize her responsibility in the carrying out of every measure for cleaner cities and sanitary conditions, which the present fight against disease makes imperative.

I think a private duty nurse to meet her many responsibilities in these matters intelligently, should know the laws which relate to them and be familiar with the rulings of the city and state board of health, which bear upon prevention of disease. A private nurse cannot afford, nor should she wish, to live just her own individual life apart from civic responsibility.

She must love people and adapt herself without friction to her surroundings. Neither should she withhold the help she can give to organizations in her own profession, and thereby fail to gain for herself the inspiration which can come only through association with other nurses. It is a lamentable fact that in Wisconsin there are so many private duty nurses who do not belong to one single nurses' organization. It is an accepted truth that the united effort of many workers can accomplish practically what they choose. We are today making our profession in this state and I wish in this paper to appeal especially to every private duty nurse to identify herself with her own local organization and with our State Association. I regret that some cannot see their duty and privilege in this matter, but must be urged to bear their portion of responsibility in the work to be done. For her own advancement, a private duty nurse should know the value of these organizations and being identified with them.

AN IMPROVISED DRESSING CART.

The following suggestion may be of use to small hospitals having no dressing room. A white enamel tea wagon can be purchased for $6.75, and an iron rod fastened to one end to carry receptacle for soiled dressings. On the cart can be placed solution basins and dressings, and this can be wheeled anywhere needed instead of having to carry the dressing tray and trying

to find room for it on an already overcrowded bedside table.

The above suggestion comes to us from Mrs. Milicent Northway, Superintendent of Kenosha Hospital, as being of possible benefit to small hospitals that cannot have the regular surgical dressing cart such as are built exclusively for that purpose and costs from $25 to $40.

THE NATIONAL CONVENTION OF THE THREE NATIONAL ORGANIZATIONS OF NURSES.

The annual convention of the three national organizations of nurses, the American Nurses Association, The National League of Nursing Education and The National Organization of Public Health Nursing, will be held in Philadelphia, April 26th to May 2nd, 1917.

The joint program of the three societies is outlined as follows:

TENTATIVE PROGRAM.

Wednesday, April 25. Meetings of Boards of Directors and Committees of the three national organizations.

Thursday, April 26, 8 a. m. Registration. 10 to 12, Business sessions of the League and of the Organization for Public Health Nursing. 1 to 2:30 p. m., Advisory Council. 2:30 to 5, Business session of the American Nurses' Association. Session of lay members of the Organization for Public Health Nursing, Round tables. 4 to 6. Social hour. 5 to 6, Round tables. 8, Joint open session, speaker, Mr. Osborne.

Friday, April 27, 9 a. m. Joint session, subjects: Public Demands on the Graduate Nurse, three papers; How to Meet these Demands, three papers. 12 to 1:15, Round tables. 2.30 p. m., Joint session, subject: Problems of the Small Hospital, three papers. 3:45 to 4:30. Social hour. 4:30 to 5:45, Round tables. 8:15, Joint session, Health Insurance.

Saturday, April 28, 9 a. m. American Nurses' Association and the League. Subject: History of Nursing, two papers and discussion. 9 a. m., Meeting of the Organization for Public Health Nursing, subject to be announced. 10:30, Round tables. 2:30 p. m., Automobile trip.

Sunday, April 29. Special services in all churches and group gatherings.

Monday, April 30, 9 a. m. Joint session, subjects: The Status and Training of Attendants, three papers; Endowments of Schools of Nursing, two papers and discussion. 12 to 1:15, Round tables. 2:30 p. m., joint session, subject, Health Centers. 3:45 to 4:30. Social hour. 4:30 to 5:45, Joint session, subject, Social Hygiene, two papers and discussion. 8:15 p. m., Joint session, subject: The Red Cross.

Tuesday, May 1, 9 a. m. Joint session, subjects: Records and Statistics, three papers; The Private Duty Nurse, two papers and discussion. 12 to 1:15, Round tables. 2:30, Joint session of American Nurses' Association and League, subject; Teaching, two papers and demonstration. Session of Organization for Public Health Nursing, subject to be announced. 3:45, Social hour. 4:30, Round tables. 8:15, A demonstration.

Wednesday, May 2, 9 a. m. Business meeting of the League. 10:30, Business meeting of the Public Health Organization. 12 to 1:15, Advisory Council. 2:30 p. m., Business meeting of the American Nurses' Association.

NEWS ITEMS AND PERSONALS

Miss Gladwyn Roberts, R. N., of Deadham, Mass., has been secured to take charge of the public health work in Whitewater and Miss Mina DeKelver, R. N., of Minneapolis, to do the same work in Berlin.

Miss Eleanor Zuppaun, R. N., Superintendent of the La Crosse Hospital Training School for a number of years, has resigned, her resignation to take effect May 1. Miss Zuppaun will go to Minneapolis for an extended rest after which she will return to Wisconsin to take up training school work.

The following Wisconsin nurses are among those who expect to attend the National convention of the American Nurses' Association which convenes in Philadelphia April 26th: Miss M. E. Good, County Hospital, Wauwatosa; Miss Mathilda H. Krueger, Rural Health Nurse, Menominie; Miss Stella Mathews, Milwaukee; Miss Katherine Almsted, Supervising Nurse, Anti-Tuberculosis Asso., Milwaukee; Miss Marie Peterson, Public Health Nurse, La Crosse; Miss Freida Schultz, Milwaukee.

The Milwaukee County Nurses' Association held its March meeting at the Nurses' Club House at which time Dr. C. H. Stoddard gave a very interesting talk on his experiences while with the United States Army on the Mexican Border.

The Milwaukee County Hospital Alumnae Association held its regular bi-monthly meeting at the Nurses' Club on the evening of March 20th. Following a short business session the remainder of the evening was spent socially which included delightful refreshments served in the Club dining room.

The Kenosha Hospital Alumnae Association, met for their March meeting with Miss Constance Hays at the Willowbrook Sanatorium and who gave a very interesting talk on Tuberculosis Sanatoria.

The Merchants and Manufacturers' Association of Milwaukee has asked the co-operation of the Wisconsin State Nurses' Association in securing the National convention of the American Nurses' Association for Milwaukee next year.

Miss Marie Peterson, public health nurse of La Crosse,

has been elected delegate to represent the Graduate Nurses' Association of that place at the American Nurses' Association meeting in Philadelphia, April 26th.

The Milwaukee County Nurses' Club House is the center of great Red Cross activities at the present time. Twelve Red Cross classes in Elementary Hygiene and home Care of the Sick meet here weekly in groups of twenty and are instructed by Miss Stella Mathews, Mrs. Kate Kohlsaat and Miss Bertha Schultz. Other classes are being formed which will necessitate additional equipment and instructors. Miss Katherine Olmsted and Miss Ella McGovern have been added to the present staff of instructors.

The completion of the Milwaukee Base Hospital Unit, which comprises a personnel of about 250 people, is nearing completion. The following nurses have volunteered for service on the Nursing Staff:

Mrs. Celia Littlefield, 196 Martin St.; Miss Bess Blaisdell, 1194 Farwell Av.; Agnes Bill, Oshkosh; Rosetta Burgardt, 232 Seventeenth St.; Alydia Braskamp, Bill St.; Waupun; Alma Brunk, Greenfield Preventorium, Milwaukee County; Margaret Campbell, Children's Hospital, Tenth St.; Anna Dastych, La Crosse; Mary Devine, 1128 Sycamore St.; Lavina Deitrickson, Head Nurse, Blue Mound Sanatorium; Stella Fuller, recently resigned as superintendent of the Manitowoc Lutheran Sanatorium, Whitelaw, Manitowoc County; Arabella Grobe, 942 National Av.; Ida Gerbing, 2314 Cedar St.; Anna A. Groh, 2330 Chestnut St.; Nettie Hawley, Nurses' Home, 566 Van Buren St.; Caroline Herrl, Children's Hospital; Martha G. Horn, Minneapolis; Lillian Knaak, Watertown; Olga Lucks, Milwaukee County Hospital; Katherine Masterson, 155 Knapp St.; Gudrun Myrseth, Nurses' Home; Susan McNaughton, Waukesha; Gertrude McKee, Superintendent Children's Hospital; Mary Nigl, 902 Ninth St.; Helen O'Neil, Trinity Hospital; Anna Rasmussen, Grand Rapids; Clara Ruehte, 2330 Chestnut St.; Frieda Schulz, 229 Martin St.; Berthat Schultz, Nurses' Club; Frances Silbaugh, 512 Bradford Av.; V. C. Talty, Milwaukee County Hospital; Agnes Tompkins, 196 Martin St.; Anna Wiesner, 682 Eleventh St.; Louise Walters, 1318 State St.

Mrs. Mabel Bradshaw, Suprintendent of the Milwaukee School Nurses, 361 Irving Pl.; Mrs. Kate Kohlsaat, Superintendent Visiting Nurses' Association, 501 Marshall St.; Misses Marion D. Bell, Clark Memorial Hospital, Neenah; Clara Baxter, 198 Martin St.; Bessie Busse, 1720 Walnut St.; Clair D. Sell, Marshfield; Lucia Freeman, South View Hospital; Elizabeth Isermann, National Soldiers' Home; Gertrude Isermann, Superintendent Milwaukee Maternity Hospital; Paula Knicks, Fond du Lac; Bessie LaFever, Johnston Emergency Hospital; Gertrude Lohman, County Nurse, Sheboygan County; Olga Lichtenberg, 729 Twenty-sixth St.; Stella Matthews, who has had charge of many of the Red Cross Classes, Nurses' Club; Anna Motl, 833 Second St.; Ella McGovern, 1090 National Av.; Agnetta Olson, 649 Cass St.; Mary Pfeffer, Melrose, Minn.; Grace Prichard, 3402½ Walnut St.; Alice Schaeffer, 509 Jackson St.; Anna M. Schneider, 748 Sixteenth St.; Lydia Thiele, Nurse in Charge of the Greenfield Preventorium; Cornelia Van Kooy, Demonstrating Nurse with the Wisconsin Anti-Tuberculosis Association; Regina White, Superintendent Johnston Emergency Hospital; Mathilda Wilke, Chicago; Cecilia Wagner, Wauwatosa; Mathilda Wolf, 1067 Booth St.; Eleanor Zuppuan, Lutheran Hospital, La Crosse; Miss Katherine Olmsted, Supervising Nurse of the Anti-Tuberculosis Association, Milwaukee; Miss Mathild H. Krueger, Rural Health Nurse of Dunn County, Menominie; Miss Elizabeth Kasey, Supt. Nurses, Trinity Hospital, Milwaukee; Miss Erna Kewalke, Visiting Nurse, Milwaukee; Miss Gertrude Sandberg, Columbia Hospital, Milwaukee; Miss Ethel Wightman, Columbia Hospital, Milwaukee; Miss Elizabeth Leenhouts; Miss Cora V. Nifer, Chief Nurse.

ABSTRACTS

Relation of Tonsillar and Nasopharyngeal Infections to General Disorders. This report is based on the study of 1,000 tonsillectomies. A histologic examination of the tonsils and adenoids removed at operation was made in every case. One hundred and thirty-nine were from colored patients, and of these eleven, or 7.9 per cent., were tuberculous. There were 861 white patients, and of these thirty-five, or 4 per cent., were tuberculous. Ninety-one patients had an infectious type of arthritis. Of this number the authors have been able to follow up and note the ultimate result of the joint condition in thirty-one. In twenty-four the joints are normal. Four cases are classified as improved because the patients are now able to walk without pain. Two are not improved, and one is in worse condition than at the time of the operation. In four cases of myalgia the trouble had entirely disappeared. Only two of nine cases of rheumatoid arthritis are improved. Five are much worse. The conclusions drawn from this group of cases is that only in very exceptional circumstances should any one subject a patient with "rheumatoid arthritis" to an operation for the removal of the tonsils. Removal of the tonsils and adenoids in cases of rheumatic fever eliminates one of the portals of infection. Four of twenty-five cases have had a recurrence. Removal of the tonsils and adenoids is not a very satisfactory therapeutic or prophylactic measure in chorea. Of the twenty-three cases of Sydenham's chorea in which the tonsils and adenoids were removed, eight have had a recurrence. A chronic enlargement of the deep cervical glands at the angle of the jaw, together with the past history of the patient, was the indication for tonsillectomy in 541 of the 1,000 cases. In twenty-one of 366 cases re-examined, the glands, subsequent to the operation, gradually assumed the characteristics of a tuberculous infection. In thirty-six additional cases the glands did not subside, and are treated as incipient tuberculous glands.—*Abs. in J. A. M. A., Feb. 24, 1917 from Bull. Johns Hopkins Hosp., Jan., 1917.*

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RESULTS OF TREATMENT IN HODGKIN'S DISEASE.*

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In this summary of our clinical experience in treating sixty-three cases of Hodgkin's disease of certain diagnosis over a period of eight years, we shall exclude, so far as practicable, hypotheses and technical details. We offer an interpretation of the effects of our therapy that is to some extent both incomplete and unsatisfactory. Many of our patients began treatment comparatively recently, and approximate accuracy in the estimation of results depends on a series of well controlled observations extending over a period of at least five years. On the other hand, this is the largest series of cases reported from one group of observers, the only one that has been followed at frequent intervals by coordinated workers, consecutive records thus being obtained of variation in the blood picture, general physical condition and roentgenographic evidence. These observations, so far as possible, have been made independently in an effort to eliminate bias.

Pending the final determination of the cause, course and prevention of this disease, clinicians should have no less interest in its treatment; and this interest must be considerable since, next to tuberculosis, Hodgkin's disease is the commonest and most important disease of the lymphatic system.[1]

Whether one holds with the great majority that the disease is in nature inflammatory, or with the minority that it is neoplastic, concerns an individual sufferer but indirectly, provided every possibility of recovery is vouchsafed.

Our contention that the affection partakes *in effect* of the destructive potentialities of both a malign infection and a neoplasm[2] has been given practical trial in the methods of treatment employed, the appended results of which will to some extent determine the rationality of both.

CLASSIFICATION OF CASES.

It is essential to group these cases according to the nature and stage of the process because the extremes, from a therapeutic point of view, are virtually incomparable. Years after Hodgkin's work indicated that he had discovered a clinical and pathologic entity, clinicians came to recognize acute and chronic forms, the former of from two to five months' duration, the latter lasting as many years. Much earlier Trousseau[3] had described three stages of the disease so accurately that his classification is the best available:

1. The latent stage, extending from the onset to the progressive stage.

2. The progressive stage, in which multiple more or less widely separated groups of glands become involved, so suddenly at times as to have been aptly termed explosive, but usually occurring gradually and ending after correspondingly variable intervals in the final or cachectic stage.

3. The cachectic stage, in which the peculiar progressive pallor and other signs of increasing physical and physiologic debility indicate that resistance and rehabilitation have been overcome permanently.

*Read before the annual meeting of the Wisconsin State Medical Society, Madison, Wis., Oct. 4, 5 and 6, 1916.

[1]Ziegler: Berl. klin. Wchnschr., 1911, 48, 1917.

[2]Yates, J. L., and Bunting, C. H.: The Rational Treatment of Hodgkin's Disease, The Journal A. M. A., June 12, 1915, p. 1953.

[3]Trousseau: Clin. med., 1865, 3, 555.

So great is the difference in the clinical picture at the beginning and at the end of these stages, that Trousseau's classification has been amplified, as indicated in the accompanying diagram. Our cases roughly fall into this grouping, but classification of individual cases according to this scheme is admittedly inaccurate and merely tentative.

CLASSIFICATION OF CASES.

- All cases, 63
  - Acute cases, 5 — Group 1, 5 Cases
  - Chronic Cases, 58
    - Stage 1, 8
      - Early — Group 2, 5 Cases
      - Late — Group 3, 3 Cases
    - Stage 2, 25
      - Early — Group 4, 11 Cases
      - Late — Group 5, 14 Cases
    - Stage 3, 25
      - Early — Group 6, 14 Cases
      - Late — Group 7, 11 Cases

TREATMENT.

After the reasons for treatment and the methods of treatment have been outlined, their application to each of the foregoing groups will be indicated and the results obtained stated.

General Principles.—At the beginning of this work a mortality of 100 per cent was universally accepted, although there was lacking the record of a single exception to prove the rule. As experience increased, it was inevitable that methods of treatment should vary. Failures were distressingly frequent, but a few successes in ultimate recoveries and in satisfactory palliation (prolongation of life with decreased discomfort and the maintenance of the patient's optimism) sufficed to show that eventually a more effective therapeusis was at least a developmental probability.

In addition to a conviction that the process was infectious, clinical studies brought a recognition of certain fundamental facts. The most significant of these in importance has hitherto escaped recognition. Although this disease is noncommunicable and very few individuals are susceptible, after the process is once well established, final spontaneous recovery seldom if ever occurs; yet throughout its course repeated and almost successful temporary defensive responses are manifested.

This was assumed to indicate that the infection is of low virulence, and that the affected individuals are incapable of a permanent protective reaction to this toxin, however it may be administered. These premises demand in therapeutic logic an early and adequate subtraction from the amount of the disease in order to place the balance of power emphatically and rapidly on the side of individual resistance and to maintain it there, through the elimination of every possibility of reinfection.

Further, this morbid process imitates the behavior of malign affections, notably of certain types of tuberculosis and of certain malignant neoplasms, especially the carcinomas, in so many details, as, for example, in modes of dissemination, in direct extension and in the nature of local and general resistance, that the nearly identical problems presented seem to demand the same solution. This is an additional indication for surgical intervention.

Finally, the rather numerous "cures" recorded in the literature, following an almost incredible number of methods of treatment, were without exception but temporary improvements. The improvement in the majority of instances occurred in spite of the treatment used, though in some doubtless it was fostered thereby.

Apparently a composite sequential series of treatments is demanded, including everything of proved or possible value, as it was quite out of the question, with one exception, to devise anything, however rational or irrational, that had not already been employed, all with the same ultimate results.

These conditions seemed to us to indicate the following methods:

1. To determine and to eliminate the portal or portals of entry of the infection, those chronic lesions of skin or mucous membrane pointed out by Trousseau in 1865 and curiously never rediscovered, never even given any practical recognition by therapeutists.

2. To extirpate so thoroughly all eradicable involved tissue in suitable cases as (*a*) to place the balance of power decidedly on the side of the individual instead of on that of the disease; (*b*) to eliminate this source of further infection and in-

toxication, and (*c*) to prevent subsequent physical and physiological debility through the continued growth of this tissue in situ and consequent pressure and irritation effects on surrounding structures.

3. To keep the balance of power on the side of the patient (*a*) by improving general health through hygienic measures; (*b*) to prevent by radiation, by immune serum and by medication any extension of the disease, and (*c*) to repeat these treatments at intervals of a few months, unless other manifestations of progress of the disease, as determined by the patient's condition and especially by untoward changes in the blood picture, demand more frequent treatments or more radical interventions.

Three of these procedures require explanation.

It has long been held and frequently reiterated, notably of late years by Fischer[4] and Dorothy Reed[5], that surgery, always of doubtful value, frequently was positively harmful, and that reexcisions were seldom if ever justifiable. These views were based on the repeated observations that local recurrences, usually prompt, were the rule after the excision; and, moreover, that these recurrences often assumed a type more acute than the original process and were prone to hasten rather than to retard death. We have seen such recrudescences appear within a week. The explanation is simple.

A portal of entry (inflamed tonsils, teeth, accessory sinuses, patches of dermatitis, bronchitis, enterocolitis, etc.) is comparable to a primary lesion in carcinomatous processes. The records of earlier, less radical surgical treatment show that these foci of dissemination were constantly neglected, and that therefore local reestablishment of the disease was a natural result, particularly since this affection seems limited at its inception to preexisting lymphoid tissue, only secondarily extending therefrom to invade directly other tissues. Consequently if, in addition to this neglect, the primary excisions are relatively incomplete (and according to our belief none is or can be actually complete in removing all potential lymphoid tissue[6]), and are not therefore followed immediately and at intervals thereafter by intensive Roentgen-ray treatments, distressing experiences of aggravation of the disease are almost certain to occur. In addition, the constant liability to septicemia must not be overlooked.

On the other hand, radical extirpations preceded by removals of portals of entry, and followed by careful after-treatment have proved that in favorable (less advanced) cases local recurrence may be

[4]Fischer: Deutsch. Chir., 1901, 24, 104.

[5]Reed, Dorothy: Johns Hopkins Hosp. Rep., 1902, 10, 133.

[6]So little is known of the number and distribution of lymphoid rests or of the redevelopment of lymphoid structures consequent on excisions that it is impossible as yet to make more than a conjecture as to the sequence of events after a wide, thorough extirpation. Clinical evidence indicates that following even the most thorough and radical excisions of cervical tissue, e. g., for tuberculosis or squamous cell epithelioma, recurrence in unmistakable lymph glands may develop in such numbers and in such distribution as to make it quite certain that either or both of such regenerative processes must have been operative. Years after the final local disappearance of Hodgkin's disease following radical excisions and Roentgen ray, we have seen a simple type of lymphadenitis occur in such areas in a pefectly natural fashion, following an inflamed tooth or a dermatitis of the scalp. Our observations suggest that present conceptions of the normal distribution and function of lymphatic tissue, or of the abnormalities developing under the stress of other types of involvement (tuberculosis or cancer) barely indicate the possibilities in these particulars, possibilities of infinite therapeutic potentiality. Direct and indirect evidence is found in abundance in human pathology to support Murphy's (Murphy, J. B., and Morton, J. J., Jour. Exper. Med., 1915, 22, 204) brilliant experimental observations and those of Theobald Smith (Jour. Med. Research, 1915, 32, 455) indicating the significance of the lymphocyte as an index of local and general resistance to chronic malign affections, inflammatory and neoplastic. Hence our endeavors to protect all lymphatic tissue from infection, as the disease is prone to start in the germinal centers, and also to induce compensatory hyperplasia in actual or potential lymphoid rests. There is evidence that such hyperplastic tissue is not only hyperresistant itself, but also contributes materially to general resistance. For example, after multiple radical excisions with subsequent radiation done for palliation in a patient, there was an interval of months of such continued well-being without any superficial evidence of disease that hopes of recovery were entertained, though the intrathoracic portion of the disease did not improve. General resistance collapsed suddenly after a severe griplike infection. Recrudescences then appeared and developed rapidly in areas hitherto immune. In this connection the work of Murphy and his associates, and the earlier experimental observations of Heineke (Mitt. a. d. Grenzgeb. d. Med. u. Chir., 1904-1905, 14, 21) and of Warthin (Internat. Clin., 1906, 4, 243) show the paramount importance of proper dosage of the ray. We have had no experience with radium, and will have none until it can be shown to give at least as good results as the Roentgen ray with no greater dangers.

reduced to a surprisingly low percentage (possibly less than 5 per cent.), and that when they do occur under these conditions they are usually late and have assumed a much more chronic type of lesion. Such late lesions may be excised safely under local anesthesia, but afterward the site of operation should be treated with the Roentgen ray as if this late procedure were primary.

We believe in the efficacy of extirpation because of examples of recovery following such treatment which we report below; moreover, we have personal knowledge that individuals showing similar forms of the disease and treated similarly by others but without excisions have succumbed after more or less temporary relief. In our experience fever has disappeared, and local general improvement has followed single and multiple extirpations—a result otherwise not obtainable. Two persons hopelessly ill have requested additional operations because of the period of subjective improvement following previous extirpations.

Once more we wish to emphasize the negative to these assertions: If extirpation is not to be complete, it should not be attempted. Meddlesome surgery in Hodgkin's disease is even more dangerous than in cancer. We believe that we have seen hopeless dissemination follow a simple "test excision," and therefore practice them only in doubtful cases, when prepared to follow a frozen section diagnosis immediately with a radical extirpation, or in exceptional cases when an accurate histologic estimation of the nature of the process is of sufficient value as an aid to therapeusis to balance the danger. Such wounds should be treated with the Roentgen ray immediately and repeatedly, as even in acute cases the liability to dissemination is thus reduced materially.

The use of an immune serum presupposes a final proof of the etiologic relationship of *B. hodgkini.* As we cannot offer that proof, we must justify the use of a serum on other grounds.

The administration of the serum when it is sufficiently potent has reduced temperature in certain febrile cases in a manner that seemed to prove it the cause of the defervescence. There has been in both febrile and afebrile cases an improvement in subjective symptoms that was absent when the serum was impotent. One patient was particularly susceptible to this benefit, and could estimate after a few injections the value of any particular supply. Variations in potency were noted in the serums obtained from different horses and at different times from the same horse, and could be estimated only by the effects noted clinically. There was no bactericidal action. However, agglutination and complement fixation tests of the several serums were positive, as a rule, but showed no variations corresponding to their clinical effect.

Whether given subcutaneously so as to filter directly through affected glands or administered intravenously, there occurred usually a fairly prompt and at times considerable enlargement of such glands. In one case with advanced mediastinal involvement, this acute tissue reaction produced a pupillary asymmetry and a dyspnea that was alarming. This reactionary enlargement soon subsides, as a rule leaving the glands smaller than before the administration was begun. Such tissue subsequently removed has failed, in the few instances in which this has been done, to give a positive culture. Negative cultures are the rare exception when the tissue shows the histologic changes of the disease. Patients who tolerate the serum seem to improve more rapidly and to receive more permanent benefits than from the same general treatment but without the serum.

Medication of this group of diseases has consisted since the days of Billroth in the administration of arsenic. It is without specific lasting virtue in any form yet available, from Fowler's solution to salvarsan. Some specific chemotherapy is urgently needed, but wanting this, fresh air, sunshine and proper feeding are infinitely superior to any drugs when there is no indication for tonics and the like.

APPLICATION OF TREATMENT TO GROUPS.

Group 1, Acute Cases.—The blood picture, the most reliable single diagnostic evidence, is often obscured by the leukocytosis.[7] It is fortunate that the incidence of this type of the disease is comparatively slight, for it is about as amenable to treatment as is the mastitis carcinomatosa of lactation or melanoma. By the time a diagnosis is made, the outlook is usually hopeless because of the intense intoxication and extensive involvement. However, if this acute process could be converted promptly into a chronic type, ultimate recovery is conceivable, as will appear later.

In these acute types, periadenitis, comparable in

[7]Bunting: Bull. Johns Hopkins Hosp., 1911, 22, 248.

its pathologic and prognostic significance to the penetration of gland capsules by cancer metastases, is both early and extensive. This periadenitis makes a satisfactory extirpation extremely difficult or more often impossible. Nothing less, however, promises even temporary relief, as this type of the disease is least responsive to radiation and typifies the rapid uncontrollable recrudescences that have been noted by all observers to follow so regularly in those "cures" obtained by the ray alone. This universal experience, fortified by our own results, has convinced us that mere reduction in the size of the gland masses should not be the primary object in treatment, but rather such therapy as, controlled by the blood picture, leads to an overcoming of the infection.

Group 2, Incipient Cases.—The blood picture is positive and early. In these instances, the portal of entry has been recently established, and only a few adjacent glands are beginning to be palpable. Such early diagnoses of the disease are partly fortuitous and partly the result of (1) careful physical examination of patients complaining of nothing more serious than a lack of energy; (2) routine blood counting, and (3) an accurate interpretation of tuberculin tests. So far these early manifestations have been limited to the primary cervical variety of the disease. Tonsillectomy, careful exclusion or treatment of tooth or sinus troubles, roentgenotherapy and hygiene have sufficed to check the disease at this stage, even after test excisions have been made. Exceptionally, the entire demonstrable disease process may be limited to one tonsil and yet the toxemia be sufficient to produce the characteristic blood changes, and even a specific bacteremia may have occurred.

Group 3, Early Cases.—The blood picture is positive and still of the early type. There is unmistakable involvement of the primary group of glands, cervical, axillary or inguinal (the primary mediastinal and retroperitoneal varieties have not been recognized as early as this), but without demonstrable extension therefrom. In this group and every other more advanced group the occurrence of a specific bacteremia of some extent is virtually certain at one or more of the positive phases, though the toxemia alone is possibly capable of inducing an adenitis in both adjacent and remote lymphoid tissue. Elimination of a portal of entry, radical extirpation, roentgenotherapy and hygienic living have sufficed to relieve this uncommon type—uncommon because usually by the time one gland group is materially enlarged, extension to others has already occurred, at least at the time when advice is sought. It is unfortunate that too often patients of this and the preceding group are advised to temporize, or if the diagnosis is suspected are given arsenic and Roentgen-ray or radium treatments, and admonished to avoid surgery as a path to certain death. This attitude would be less open to criticism had any other method of treatment ever produced a cure even at this early stage.

Group 4, Moderately Advanced Cases. — The blood picture is positive but not of so early a type, that is, there are fewer lymphocytes, and a moderate eosinophilia has developed. More than one, sometimes all of the main superficial groups are diseased, but extension to the mediastinal or peritoneal glands cannot be more than suspected. These individuals show definite effects of intoxication and are slightly febrile, at least during periods of exacerbation. Eliminations of portals of entry and extirpation of the gland group or groups most involved may induce a permanent regression in other glands under proper radiation. Unless these secondary gland groups are but slightly enlarged and the patient's condition otherwise is indicative of no serious damage, the safest course is to proceed as rapidly as feasible with repeated extirpations to give maximal protection to inaccessible glands and to the lymphadenoid tissue in general. This should be followed by the usual secondary treatment. Even this early in the disease the protective and regenerative powers may be nearly exhausted, and quite probably are, in the patient having the peculiar intermittent, or Murchison type of fever. In all patients the margin of reserve power of resistance is reduced far more than is apparent. The individuals of this group are the ones who above all others change so suddenly from a relatively safe into a quite hopeless condition. After this "explosion" has occurred, an equally sudden and considerable increase in discomfort inspires these unfortunates with a tardy but now impelling desire for relief. They now submit willingly to the palliative measures far more trying than curative procedures would have been but a few weeks earlier.

Group 5, Advanced Cases.—The blood picture

may be like the preceding, or may assume later features—a gradual reduction of nearly all cell forms, especially the lymphocytes, with a relative and actually neutrophilic increase. In these persons there is always a demonstrable involvement of deep structures, intrathoracic, intraperitoneal or both, frequently accompanied by more or less extensive involvement of multiple superficial gland groups. The difference between this and the preceding group in physical appearance may be slight, but commonly there are greater pallor, malaise and febrile reaction. Earlier it appeared that in this type palliation alone was obtainable; more recently there is evidence that recovery is occasionally possible. Radical extirpations, almost forbiddingly extensive, must be undertaken, and it is in this group that the administration of serum has seemed to make lesions responsive to treatment otherwise inefficacious. In the majority of these patients, in spite of relatively healthy appearance, the powers of recuperation and, possibly, of lymphoid regeneration have been so seriously and permanently depleted that were the entire Hodgkin's affection suddenly eliminated it is quite likely that the consequently lowered resistance to other types of infection, notably tuberculosis, would render long-continued existence improbable. Differentiation between this and the succeeding group is so uncertain that a complete explanation and apparent understanding of the exact condition by the patient must always precede any attempt at treatment.

Group 6. Cases Probably Hopeless but Capable of Palliation.—The blood picture is of late type; the lymphocytes are reduced (below 15 per cent.), but the platelets are still numerous and the leukocytosis not excessive (less than 25,000).

The patients are still active, and though considerable deep involvement is easily demonstrable, there appears to be such an abundance of physiologic vigor that prolonged relief, if not possible recovery, is conceivable. However, the margin of reserve power is always much narrower than it appears, and tissue regeneration, especially of the hematopoietic system, is nearly if not quite at the vanishing point. Here again treatment should not be undertaken without a frank understanding. If it were not for the great reduction in physical and mental distress usually obtainable, any radical treatment would be positively contraindicated.

Group 8, Cases with Lethal Involvement and Probably Beyond Palliation.—The blood picture is now of the very late character; the lymphocytes are below 5 per cent., there is a neutrophilic leukocytosis, and the platelets may disappear. Occasionally incomplete operations to relieve pressure distress are humane. Opium, scopolamin and cocain are the main reliances. It is remarkable how much reserve strength persists in this group when prolongation of life is regrettable. Unfortunately the number of patients seeking relief is greater in this group than in any other. This fact does not appear in our records, as a positive diagnosis can usually be made by letter, even when from a layman, and without making a blood count. Relatively few such patients come under our direct personal observation.

RESULTS.

We have heretofore maintained that a recovery could be accepted only when a person had been free from all evidence of the disease, including a normal blood picture, for five years. This period exceeds so far as could be determined the longest free interval on record. In those rare instances of late recrudescence, the possibility of reinfection after a recovery has been established must be disregarded until the nature and methods of infection are determined absolutely, even though there is evidence of only incomplete temporary protective reactions.

Experience is still insufficient to determine the nature of a "normal blood picture" for individuals who have recovered *after* having had the disease develop beyond the incipient stage. The specific toxin has a selective action on hematopoietic tissues, wherein it provokes primarily a stimulative irritation and later produces progressive degenerative changes in these structures, from which regeneration becomes somewhat proportionately and increasingly impossible. Recovery occurring at any period, after complete regeneration is impossible, is bound to exhibit some evidence comparable to a cicatrix. It now appears that part of such evidence is more or less permanent impairment of the functions of lymphoblastic tissue. Hence a subnormal lymphocyte count need not of itself be indicative of a persistence of the disease, although suggesting reduced resistance, if the other features of the morbid blood picture have returned approximately to normal, as determined not by a single count but

by a series of observations extending over several months.

During the first year after the institution of treatment, improvement, however remarkable, is of little or no prognostic value. The first year (and usually the first part thereof) has furnished virtually all of the "cures" recorded in the literature as the result of any methods of treatment.[8]

Therefore the results of a year or less in duration will be termed "temporary." During the second year a more accurate judgment is possible, and the term "apparent" is justified, as is also the term "probable" during the third and fourth years. In the fifth year and thereafter, the ultimate results become relatively more certain, though final judgment must be reserved until a complete necropsy presents conclusive evidence years after recovery has been accepted clinically.

RESULTS OF GROUPS.

Group 1.—Acute cases; five.

Four patients died in from one to four months; one primary retroperitoneal was discovered postmortem, the other three (two primary cervical and one primary mediastinal) were subjected to various treatments without checking the process. One case, primary cervical, has assumed a chronic type following tonsillectomy, extraction and treatment of teeth, multiple excisions and reexcisions, serum and Roentgen ray. Temporarily this patient is much improved and is still improving. Recovery is conceivable.

Estimated possibility of recovery, less than 5 per cent.

Group 2.—Incipient cases; five.

Two patients recovered, five years and over.

Two cases probable recovery, two years and over.

One case apparent recovery. In this patient the disease was limited to a nodule in one tonsil. Several months after tonsillectomy and Roentgen-ray exposures of the neck, symptoms suggesting extramedullary pressure on the tenth to the twelfth thoracic spinal segments developed. Relief finally followed serum administration and Roentgen-ray treatment of spine.

Estimated possibility of recovery, from 80 to 90 per cent.

Group 3.—Early cases; three.

One patient probably recovered. This patient has been under treatment eight years. His blood picture has never returned to normal and probably never will, but it is conceivable that the disease was eradicated five years ago.

One patient temporarily recovered.

One patient refused operation, and was treated elsewhere with vaccine and the Roentgen ray. Dead.

Estimated possibility of recovery, from 60 to 70 per cent.

Group 4.—Moderately advanced cases; eleven.

Two patients, recovery probable. Improvement during the past five years indicates that the disease is all but overcome.

One patient probably recovered.

One patient apparently recovered.

Five patients temporarily relieved; one of these now shows hopeless involvement.

One patient refused treatment.

One case, primary incomplete excision done elsewhere without previous tonsillectomy. Tonsillectomy; vaccine and Roentgen ray given, followed in a few months by a sudden recrudescence in an acute form. This was attributed, possibly unjustly, to the vaccine.

Estimated possibility of recovery, from 30 to 40 per cent.

Group 5.—Advanced cases; fourteen.

One patient probably recovered; case once appeared hopeless.

Three cases temporarily improved.

Three patients refused treatment; two dead, one dying.

Three cases are in terminal stages. All these patients refused intervention at a critical period when nothing less would benefit.

Two patients are dead; both were temporarily benefited, one (mentioned above) so greatly improved as to raise hopes of a recovery.

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[8]We have been unable to learn of a single permanent recovery from the disease except those herein recorded, where a positive diagnosis has been made by other than clinical methods of physical examination. Tuberculous lymphadenitis can imitate Hodgkin's disease too accurately to be differentiated except by the morbid histology, and such examples are too common to be disregarded. We assume that the constant failure of the exponents of any method of treatment to make subsequent reports of their patients who improved primarily or to record consistent improvement leading to recovery in other individuals must be accepted as evidence of the inefficacy of those methods.

One patient has been subjected recently to an incomplete operation elsewhere.

One patient succumbed to operation.

Estimated possibility of recovery, from 5 to 10 per cent.

GROUP 6.—Very late cases; palliation still possible; fourteen.

Three patients declined to begin treatment. All are dead.

Three patients refused to continue treatment. One dead, two dying.

Four patients survived but a few (from eight to twelve) weeks. All were temporarily improved and for a time appeared to gain. This type without reserve power would be subjected to no treatment were it possible to estimate actual conditions.

Three patients have had from three to twelve months of hope and comfort; two are still active and optimistic. Two of these appeared to be weaker than three of the preceding four patients who responded less.

One patient died during operation.

Estimated mortality, 100 per cent.

GROUP 7.—Lethally involved cases; eleven.

As stated above, this would be the largest group if it included those who have consulted by letter.

Two palliative operations were attempted; one, a mediastinal decompression which was never begun, as the patient died during the induction of anesthesia; the other, an axillary decompression, which was very gratifying in its relief.

This group included at least two primary mediastinal cases.

Mortality, 100 per cent.

COMMENT.

We regret the impossibility of giving more exact figures as to ultimate recoveries, but as 67 per cent. of these patients have come to us within the last two years, and as our work before that time was less standardized, the reason is obvious.

Apparently greater benefits are being obtained as experience increases and methods and judgment improve. We are of the opinion that in about 20 per cent. of all cases as we see them recovery is a possibility at present.

Earlier diagnoses, and the recognition that Hodgkin's disease, if treated promptly and radically, is curable would raise this percentage materially without any change in the treatment outlined above. More definite laboratory and clinical knowledge of this disease as a morbid physiologic process, and clearer conceptions of the defensive mechanisms which combat it, are needed to further an effective rational therapy.

We wish to acknowledge our indebtedness to the trustees and staff of Mount Sinai Hospital, Milwaukee, for providing facilities for clinical work, and to the Board of Administration of Milwaukee County, for continued help and encouragement in fostering at the Milwaukee County Hospital clinical, laboratory and experimental studies otherwise impossible. Our thanks are due to lay friends for material assistance and to numerous medical friends for reference of patients and for personal service in consultation, cooperative treatment and in controlling our estimation of results by repeated independent examinations of patients over long periods. As an abundant and constant supply of clinical material is so essential to progress in our work, it is difficult to express due appreciation of the cooperation of the Mayo Clinic.

DR. C. H. BUNTING, Madison: Mr. President, Ladies and Gentlemen of the Society. Were Dr. Yates not present, I should like to pay a tribute to the man whose comprehension of this problem, whose tireless energy, whose surgical skill and originality, have produced the results which have been presented to you in a group of diseases commonly recognized as absolutely hopeless. (Applause.) In view of his modesty, I will not pay such tribute. (Laughter and applause.)

The subject of Hodgkin's Disease is so broad a subject, and has so many ramifications, extending, as we believe, from the laboratory side into the group of lymphosarcoma, of pseudoleukemia and even into leukemia and into the skin disease, mycosis fungoides, that I cannot go into the subject at the present time at all fully, and I shall content myself with referring to one or two points in the paper of Dr. Yates, which I think need emphasis.

In the first place, these results show that treatment based upon an assumption that Hodgkin's Disease is primarily a localized infection, with a secondary involvement of the lymphatic glands of the body, is successful in curing a certain number of cases, and in alleviating the condition of others. Now this is true without perhaps proving the original assumption. Dr. Yates has been so bold in his surgery, necessarily bold, and advisedly bold, that were this a malignant disease of the type of sarcoma, the results would not have been different from those he has obtained, and as he has pointed out. Therefore, our original assumption is not proved by the results. Yet I think the results of the treatment are in support of the original assumption that Hodgkin's disease is an infectious disease with a primary localized lesion in skin or mucous membrane and that foci in the glands and other organs are secondary to the drainage

through them of toxins from the original focus, and, to the invasion by organisms through the lymphatic system primarily, to the parts of the body concerned.

In the second place, I wish to refer to this classification which Dr. Yates has given, showing very clearly that Hodgkin's Disease is a progressive disease. There are different stages, sometimes with abrupt and sometimes with gradual transitions between them, but it is a progressive disease, and if we begin with the very early cases, the incipient cases so-called, excluding these fulminating cases which are included under Dr. Yate's group of acute cases, we will have a gradual progress from these incipient cases on to the most chronic forms, a progress which may be accelerated at any time by the increased virulence of the organism or the lowered resistance of the patient. In other words, by a balance of power falling to the organism, it may be hurried into the terminal stages, where cure is absolutely impossible. On the other hand, as Dr. Yates pointed out, even these fulminating cases, may, under proper treatment, go on into a chronic form, where it is conceivable that ultimate cure may be possible. This assumption given in the classification is borne out by the pathological changes, and can be determined in the laboratory.

The other most striking point, and this is equally applicable to malignant diseases, to tuberculosis, to all chronic infections, is that the earlier a case is attacked, the more hopeful is the outlook. Delay in glandular cases of this type may cost the patient's life.

The mortality record, or the record of possible cures, probable cures, demonstrates that conclusively, and I think that should be the lesson, and the most important lesson which should be derived from this paper of Dr. Yates; that is, that gland cases which are shown definitely not to be tuberculosis, should not be neglected.

Excluding tuberculosis and the very acute lymphadenitis that occurs with acute infections, Hodgkin's Disease is the most common infection causing enlargement of the lymph glands, and the patient should be regarded as Hodgkin's Disease, if tuberculosis is excluded until he is proved not to have the disease.

Therefore, the early diagnosis in this disease is the point of greatest importance.

Those few words are all that I have to leave with you in the short time at my disposal.

Dr. H. M. Brown, Milwaukee: Mr. President and Gentlemen of the Wisconsin State Medical Society. Dr. Bunting, in beginning his remarks in reply to Dr. Yates' paper chose to place himself in the position of one who was a sort of adulator of the work of Dr. Yates. It has been my good fortune to have followed the work of Dr. Bunting and of Dr. Yates during the greater part of the period during which they have been investigating this most unusual, as we thought, disease.

I must take this opportunity to bring to you some facts in regard to what these two men have done. Dr. Yates is by no means beside the question when he lands the work that has been done by Dr. Bunting on blood examinations and methods of diagnosis of Hodgkin's Disease in the early stages, through his knowledge of the blood picture and blood conditions peculiar to that disease, but Dr. Bunting has by no means covered with sufficient adulatory admiration the work that Dr. Yates and he have done together.

Many of us must have read the life of Benevenuto Cellini, and have found interest in that part which tells of the time when he was endeavoring to get the privilege of erecting the statue of Neptune in the Piazza in Florence; how he spent his time and his money and all that he had in the world, that he might have the means of perfecting his model, and then at last had no appreciation from Cosimo de Medici, who had the right to give the prize, or to give to Cellini the right to erect his statue. So it has been with Bunting and Yates. They have worked persistently; they have gone into their own pockets and paid out large amounts of money, unselfishly and with no ulterior object in view. These men have developed our knowledge of this disease to its present point, and it would seem to be well within the province privately of the individual members of this Society to see if something could not be done to raise some sort of fund whereby this work could be brought to its final fruition. I say this without any communication with these men, but from my own knowledge of what they have done, and the accuracy of the work. So much for that part.

Perhaps there is nothing more embarrassing to a man who has to reply to a paper, or to an address than to be obliged to get up on the platform and say something that has been said over and over again at medical meetings, in regard to carcinoma and tuberculosis, and that is, that the essential point in the success of the treatment of the condition is early diagnosis. Had you followed the work of these two men, as I have, you would know how enormously important this factor is in this protean disease. But the sad part of it is that Hodgkin's Disease in its early symptoms is not of sufficient importance in the minds of the laity that they take cognizance of the conditions, and the patient does not reach the men who are familiar with the disease in its many forms until already there has been so great invasion of the glands that surgically as well as for treatment by the X-Ray, the case is beyond that stage where definite hope may be given to the patient.

Dr. Bunting has, however, developed a method of positive diagnosis, even in the earliest stages. Unfortunately that method seems to be a thing that is peculiar to his personal efficiency, the result of his great experience in blood examinations, and it seems to me that the time has now arrived when Dr. Bunting should produce some sort of a monograph, some sort of a definite series of pictures, some sort of an absolute demonstration of the conditions in the blood that mean Hodgkin's Disease, so that you and I, and all the rest of us, could from the early blood picture, approximate a diagnosis.

In my personal experience with the disease, I am inclined to feel that,—as in cancer there are cancer houses, —so there seem also to be Hodgkin's houses; we have patients that have records of having had a grandfather, a father, an uncle, who died of "cancer of the blood", as the patients say, or the families say, and a son with the manifest picture of Hodgkin's Disease. That may be

a mere coincidence, but it has occurred in my experience in a case which I turned over to Dr. Yates for treatment.

To sum up all that I can possibly say upon the subject, we must have from these men who have made these extensive investigations, very soon, a positive means of diagnosis that shall be available to all of us, and we must try to instruct the public—alas that Herculean task to instruct the public—that they must not neglect lumps, wherever the lumps may be, and particularly they must not neglect lumps of Hodgkin's Disease. (Applause.)

Dr. L. M. Warfield, Milwaukee: Mr. President, and Members of the State Medical Society. It has been my privilege to be one of the few who were allowed to follow this work very intimately. I have seen, from the internist's standpoint, practically all of the cases that Dr. Yates has had in the last few years, and to say that it has been interesting to follow these cases is to put it rather mildly.

The theories upon which the treatment is now based, theories which, it seems to me, have been almost conclusively proven by the pathological and bacteriological work of Dr. Bunting, have been used by Dr. Yates, as Dr. Brown has said, or Dr. Bunting has said, in a very bold surgical manner. It is truly astounding how much material is removed from some of these patients, and wonderful to watch the results in some of these early cases.

Dr. Brown has spoken about the early diagnosis, and wants Dr. Bunting to tell us just exactly how we can make that early diagnosis. As a matter of fact the correct interpretation of a blood smear is not the easiest thing to give. With the considerable experience that I myself have had in interpreting blood pictures, it took me a little while before I could learn this blood picture of Hodgkin's Disease, although I do not think it is an impossibility for one to learn it. I know that at least one laboratory assistant has learned to make the blood picture and make it very accurately. It all resolves itself then into the question, looking at this chart here, of the early diagnosis of the disease. There is one point that has been very interesting to me, and I think to Dr. Yates as well, and that is, that we have discovered that in cases of early mediastinum involvement we can make a fairly accurate diagnosis by auscultating over the manubrium. Normally the breath sounds are vesicular or are broncho-vesicular due to the transmission of sound from the right apex. However, when there is any swelling in the mediastinum, we find that on auscultation the breath sounds range from bronchial to distant tubular respiration. I think it has been possible for us to diagnose some of these rather early mediastinal involvements. Practically all of those have been proven to have mediastinum involvement by the X-Ray. Some of the cases in which this sign has been positive have not shown conclusively the involvement on the X-Ray plate. We rather feel that the auscultatory sign shows enlarged mediastinal glands probably a little earlier than some X-ray pictures show.

I think that Dr. Yates and Dr. Bunting should certainly receive all the adultation and congratulation that can be given them for this splendid piece of work.

Dr. O. H. Foerster, Milwaukee: I have been asked by Dr. Yates to say a few words in regard to the X-ray treatment of these cases, for it has been my good fortune and privilege to do a large part of the work, or at least to direct it. The X-ray was employed simply as an adjunct to the surgical treatment, with the object of blocking the lymphatics and destroying the lymph tissue. In the early part of the work it was found very difficult to energize tubes sufficiently to secure the needed amount of penetration. With the introduction of the Coolidge tube two years ago, I think that difficulty has largely been overcome.

The technique of the X-ray treatment can be summarized as follows: Five milliamperes of current are passed through a Coolidge tube. The spark gap is 8½ to 9 inches. The body is divided into various areas, (I prefer six), all of which are given a treatment on the same day. The target of the tube is 12 inches from the skin surface, and the time of application for each dose, which approximates the erythema dose (just short of as much as the skin will stand) is 8 minutes. Six such treatments are given in one day to various regions, (axillae, groins, cervical) with exclusion of the splenic area, and the rays are directed at such angles as to cross each other at the desired location in the depth (cross-fire). The dose is repeated after 10 to 12 days. It is possible with treatment of this sort to reduce glands as large as two fists. I have seen cases rayed by Dr. Pfahler of Philadelphia, in which, with one such treatment, all the glandular enlargement had disappeared after four weeks. It returned, of course, as this is only an adjunct to the treatment.

The ray must be filtered through leather and through aluminum (4 millimeters of aluminum and 3 of leather) so as to exclude the soft or injurious rays. The rest pass through without injury to the skin, and reach the areas in the depths which we wish to influence.

It has been very difficult to get an effective dose into the mediastinum at the required depth. I think Dr. Yates will say that this is one of the real difficulties with these cases. I believe that now, with the Coolidge tube, and with a perfected technique, and raying laterally, so as to get under the sternum from both sides, we will be able to deposit a therapeutically effective dose in the deeper mediastinal regions.

Dr. John L. Yates, Milwaukee: It has always been most difficult to determine when involvement of the deep glands had occurred. Up to the time that Dr. Warfield made his observations about auscultatory changes, skiagrams were the only reliable evidence. Dr. E. A. Smith, with great ingenuity, has developed a method of taking pictures on the bias so that the mediastinum is shown so clearly that an early diagnosis is possible. At this time no picture in an antero-posterior direction, however well taken, developed and interpreted, can reveal these changes. Incidentally, this holds equally true in the extension of other processes, such, for instance, as tuberculosis and cancer. Roentgenotherapy of mediastinal glands differs from that of superficial glands only in

being more difficult and therefore less effective. X-ray alone will not cure. Diminution in size is however, of tremendous advantage inside the chest and may in this mechanical fashion be life-saving. The only permanent disappearance of these deep glands that has occurred in this series of patients has followed the combined use of X-ray and immune serum. It also must be remembered that when a very considerable intrathoracic involvement has caused them to undergo rapid involution, considerable scarring is almost certain to result. The contraction of this scar tissue can of itself exercise sufficient traction to be incompatable with life.

POTT'S DISEASE — DIAGNOSIS AND TREATMENT BY THE BONE TRANSPLANT METHOD.*

BY F. J. GAENSLEN, A. B., M. D.,

MILWAUKEE.

The subject of tuberculosis of the spine is one which is well worth bringing to the attention of the profession from time to time. As one reads over his histories one is impressed with the fact that the great majority of patients have had a number of physicians and usually also a number of different diagnoses. It would appear that vertebral tuberculosis, especially in adults is thought of only when the diagnosis is forced upon us by the appearance of a knuckle in the back, and yet the condition in adults is not an uncommon one. It is said that in 7% of the cases, the onset occurs after the twentieth year. Moreover Pott's Disease is the most frequent cause of compression paraplegia.

Before going to the treatment I should like to say just a word in regard to the location of the lesion as determining in large measure, the signs and symptoms which are to be expected. Brackett of Boston has shown that in the main there are two types of cases.

In the first, and this includes the great majority of cases, the lesion is located in the anterior portions of the bodies of the vertebrae. In due time there is a crumbling of these portions with the development of an angular deformity or a kyphosis. In other words, in this type there is early disturbance of the mechanical function of the spine, as shown by the loss of the normal contour.

The lesion is comparatively far removed from the cord and nerve roots, and referred pains if coming on at all, appear late. Muscle spasm in the neighborhood of the lesion, and as a consequence restriction of motion in the limited region of the spinal column, with local tenderness and characteristic attitudes are the rule.

In the second type referred to by Brackett the lesion lies posteriorly in the bodies of the vertebrae so that there is no disturbance of the weight bearing or mechanical function of the spine, but there is early encroachment upon the nerve roots and the neural canal. Thus referred pains are elicited. In other words the cord protective function of the spine is disturbed.

It is well known that these referred pains may persist for a very long time, before there is the slightest disturbance in contour. In this group the local signs are much less evident and it is this group in particular which is likely to lead to error in diagnosis.

I will not attempt to go extensively into the differential diagnosis. There are several conditions, however, which are not infrequently overlooked and which are for the most part easily excluded. Within the past year I have seen a considerable number of patients referred with back pains dependent upon a more or less localized osteoarthritis of the spine.

This condition practically never occurs before middle life, generally not before advanced middle life. The onset is gradual. There is no special muscle spasm and little or no tenderness, and motion, while much restricted in certain directions, is comparatively free in others, depending upon the location of the new bone deposits. Thus while flexion may be only moderately restricted, bending to the side may be much limited in one direction and not at all in another. Such an unequal restriction of motion should make one suspicious immediately of an osteoarthritis. The X-ray is of great value in confirming the diagnosis. As a rule also there are indications of the disease elsewhere in the body. Creaking in the knees with villous hypertrophy of the synovial membrane or enlargements of the terminal finger joints will often give one the right clue.

In very young children rickets may sometimes lead to confusion, but as a rule the presence of a rounded kyphosis rather than an angular one, together with other signs of rickets generally present, will suffice to avoid error.

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*Read at the 70th Annual Meeting of the Wisconsin State Medical Society, Oct. 4-6, 1916.

Inflammatory masses in the abdomen may produce signs suggestive of Pott's Disease with psoas abscess. If the restriction in spinal movement is due to an inflammatory mass, it is very likely to be asymmetrical, while in tuberculosis as a rule the limitation is symmetrical. This is due probably to the fact that the tuberculous process has been of sufficiently long standing to produce an irritability of the corresponding segment of the spinal cord and a consequent muscle spasm of all the muscles controlled by this segment.

Spinal metastases of malignant tumors must also be thought of. One of the crucial tests is the X-ray, but I have known this to fail. I should regard continued pain in spite of efficient brace fixation, as very suggestive of malignancy.

Aneurism also may cause considerable difficulty in diagnosis. I can speak feelingly on this point having treated one such case with early kyphosis by operative fixation. Aneurism was carefully considered in this case, but the diagnosis of tuberculosis was finally concurred in by two eminent internists and one radiographer, who after fluoroscopic examination of the chest stated that there was no expansile pulsation in the mass. The shadow in the X-ray was therefore interpreted as a mediastinal abscess. I would not know how to avoid this error in the future. Among other conditions to be kept in mind are gumma, osteomyelitis of the spine, certain cases of scoliosis and chronic back strain, but time will not permit entering upon a discussion at this time.

Treatment. Within recent years perhaps even more than formerly are we alive to the importance of rest or immobilization in the treatment of bone tuberculosis. The more perfect the immobilization, the quicker and more certain are the results. It is well known that in resections for tuberculosis of the knee, good results are obtained even though the removal of the tuberculous tissue be incomplete, provided sufficiently large areas of healthy raw bone are brought into contact with each other. Complete eradication of the tuberculous process in a joint at all extensively involved is probably only very rarely, if ever, attained. This point is emphasized because the good results obtained must be ascribed to the absolute immobilization obtained by the resulting bony ankylosis, rather than the incomplete removal of the diseased tissue.

The great problem then is how to provide this perfect fixation. Until recently the recumbent position on the Bradford frame, the plaster jacket and the spinal brace have been relied upon to furnish this fixation. While a large per cent of cases recover with treatment along these lines, the duration of treatment is so prolonged and recurrence with increasing deformity is so frequent, that other and more efficient methods of fixation were sought. Some years ago, Lange of Munich advised and used metallic splints or rods one embedded on each side of the spinous processes attached to the periosteum of the spines and laminae, in the effort to obtain absolute fixation. So far as known this method has not been used by any one else and Lange's own results have not been satisfactory.

Hibbs of the New York Orthopedic Hospital for some years has used a method of operative fixation which has given good results. His method consists in exposing the posterior spinous processes and laminae and producing incomplete fractures at the bases of the spinous processes in the diseased area and well above and below it dovetailing these broken processes with one another. This bony chain is reinforced by small strips of periosteum and bone raised from the laminae. In this manner there is formed a continuous bridge of bone extending across the lesion and having a firm footing in healthy bone both above and below the lesion. It was the writer's privilege to observe some fifteen or twenty such cases in New York some three months to two years after operation. The results were very satisfactory. This method, however, has not come into as extensive use as that of Albee who was the first to use the tibial bone transplant as a method of fixation.

Albee's method is so well known that it will be described only very briefly. The posterior spinous processes of the diseased vertebrae as well as those of one or two healthy vertebrae above and below are split longitudinally. All the right or left split halves are now deflected to the side being broken at their bases while the opposite sides are left standing. In this way a bed is formed between these split processes for the reception of the tibial graft. In early cases with but slight deformity straight grafts are used. In cases with moderate kyphosis the grafts can be cut the required pattern by bending a flexible probe to fit the graft bed and using this as a marker on the flat anterior surface of the tibia. In these cases the electric motor saw is a great convenience.

The graft is now placed in the prepared bed and

secured in place by means of heavy sutures, the needles passing either directly through the tips of the spinous processes or through the strong aponeurosis and supra-spinous ligaments. In early acute cases with moderate deformity a short preliminary period of recumbency with traction may be employed in the endeavor to reduce the kyphosis. It is important to cut the graft thick enough to give firm immediate fixation and to have marrow surface along the entire length.

The question of viability of the graft may be dismissed as an unimportant one. So long as the graft provides firm fixation it has fulfilled its purpose. Albee, Macewen and others believe that the graft actually lives and that it produces new bone cementing it into its new environment, while others believe that it dies and acts merely as a framework for the deposit of new bone from the living bone with which the graft is brought into contact. The point is still a controversal one and we must look to the laboratory to pave the way for a unification of the diverging views. The post-operative treatment has been varied. In some of the earlier cases the patients were placed on narrow, well-padded Bradford frames with an opening in the center to facilitate the use of the bed-pan. When the upper and lower ends of the frame are raised on blocks, the bed-pan can be inserted easily without any disturbance of the patient whatever. In most of my later cases the patients were placed on the abdomen on an unyielding bed, a few boards being placed across the bed underneath the mattress to prevent sagging. The disadvantage in using the Bradford frame with the patients on the back is that pressure sores may develop which may endanger the graft. As regards later after-treatment some have gone without any support whatever. A few have worn plaster casts for a variable period but in all the later cases Taylor spinal braces have been worn.

SUMMARY OF CASES.

A total number of 37 patients with Pott's Disease were operated upon, the youngest being 2 years of age, the oldest 53. There was one operative death in a recent case, a child of 5, which died three hours after operation. An enlarged thymus found at autopsy probably was an important factor.

If we confine our figures to cases operated upon more than one year ago, in whom the late results are known the following table may be obtained: Disease arrested, 16; improved, 1; unimproved, 3; died, 3; total, 23.

One of the deaths was due to pulmonary tuberculosis, two years after operation, the other to tuberculous meningitis, also two years after operation. In the first of these the spinal condition was improved, in the latter the process may be said to have been arrested the discharge from three tuberculous sinuses constantly diminishing and spinal symptoms entirely relieved.

In the total of 37 cases the lesions were distributed as follows: Cervical 2, dorsal 10, dorso-lumbar 15, lumbar and lumbo-sacral 10. The duration of the disease varied from four months to three years. Abscesses were present being either palpable or evident on X-ray examination in 19 cases. In five additional cases there were one or more discharging tuberculous sinuses, that is, almost two-thirds of the cases were complicated with abscesses, sinuses or both.

In all but three of the 37 primary union was obtained. All of these three cases were complicated by large abscesses. In one of these after long continued suppuration a small portion of the graft was extruded from either end of the incision. The main portion of the graft, however, remained in situ, the wound healed and the diseased area of the spine remained firmly fixed. It is now over three years since operation. In another there was long continued suppuration, and while the spinal symptoms were much improved the case was not considered arrested. This child died two years after operation, from pulmonary tuberculosis. In a third case suppuration ceased spontaneously after a period of seven weeks. Firm healing with efficient fixation of the spine resulted. In three cases there was secondary infection after primary union had occurred. All of these cases were complicated by abscesses and discharging sinuses. In one there was apparently an extension of the infection by continuity from a neighboring infected sinus, while in the other two the sinuses were farther removed from the operative field. In all three silk sutures had been used to fix the graft. It may be well in cases complicated with discharging sinuses and mixed infection to use none but absorbable sutures although it is difficult to say whether this would have avoided secondary infection. Certainly in all three cases some of the silk was extruded and sinuses formed leading down to the bone. In the first of these cases the graft became loose at the

end of a year necessitating removal. Treatment was continued by brace fixation. In the second, a hematoma which formed under the skin, at the site of operation became infected and led to involvement of the transplant. This patient died at Muirdale Sanatorium of pulmonary tuberculosis. In the third instance of secondary infection, fixation was not interfered with, only the lower tip of the graft being exposed. This patient had two large psoas abscesses, the one communicating with another large abscess in the thigh. The condition seemed very hopeful for a long time. The abscesses were aspirated from time to time but finally sinuses and secondary infection developed which resulted in death about two years after operation from amyloid disease.

In one of the cases of cervical Pott's Disease there were urgent symptoms of compression of the cord, while the advanced stage of the tuberculous involvement of the cervical vertebrae demanded efficient fixation. A combined laminectomy and fixation by tibial transplant was therefore performed. This procedure which was original, so far as known, seems feasible in this class of cases, although in this particular instance the patient, while making a good operative recovery died some four weeks later from a continuance of his cystitis and renal infection. The indication for this combined operation presumably will not be present very frequently, and yet I believe there is a definite field for its employment. No special technical difficulty was encountered. After removal of the laminae for decompression, the transplant was inserted in the usual manner except that it bridged over the gap in the middle. Primary union was obtained. In another case with early paraplegia and nerve root pains, and therefore suspected cord pressure, laminectomy revealed nothing pathological in the cord or meninges. Acting on the belief that the root pains must be caused by a para-vertebral tuberculous exudate, a graft was inserted, centering over the slight kyphosis, but no benefit resulted.

Several other cases are of much interest. In one the symptoms led to the diagnosis of spinal tumor, but laminectomy by an eastern surgeon about a year before I saw the patient did not reveal a tumor. There was some temporary improvement, however, which I ascribed to the recumbency after operation. This, together with the fact that there was a definite list of the spine and suggestive X-ray findings pointed to Pott's Disease, affecting the posterior portions of the bodies of the vertebrae with involvement of nerve roots and meninges. Fixation of the spine below the laminectomized portion however, was of no benefit. In two other cases, with nerve root pains without kyphosis there was little amelioration of the pain although firm fixation was obtained. One of these is too recent to determine the end result, but in the other a cervical case with brachial neuritis the root pain has persisted to the present time—six months after operation. The local process however, has been arrested as shown by the patient's general improvement in health and absence of pain in the neck during unguarded movements. A review of these cases, with paraplegia and nerve root symptoms, cases belonging to type two of Brackett, would seem to indicate that these cases have a distinctly less favorable prognosis than those of type one with the lesion in the anterior portion of the body. In these cases with the lesions posteriorly, one would not expect so striking a benefit from fixation operative or otherwise, since the mechanical function is little disturbed. Even so, firm operative fixation would appear to deserve first consideration. If we confine our figures to cases operated upon more than one year ago, in whom the late results are known, the following table may be obtained: Disease arrested, 16; improved, 1; unimproved, 3; died, 3; total, 23.

One of the deaths was due to pulmonary tuberculosis, another to tuberculous meningitis and the third to amyloid disease, all three about two years after operation, and in all three the symptoms from the spinal condition had been greatly relieved.

As to deformity it may be said that in practically all cases where this existed some improvement was obtained. This holds true as well in the dorsal cases which are so prone to develop increased deformity even during the most efficient possible fixation by conservative methods. The tibial wound healed without difficulty in every instance. In one case a fracture of the tibia occurred in a boy of 11, three months after operation, as a result of violence. The patient came in about a week after the injury, having walked on the leg in the meantime. There was slight swelling and tenderness at the lower angle of the scar and the X-ray showed an incomplete fracture, merely an irregular crack in the bone with no displacement.

In conclusion it may be stated that the impres-

sion has been gained that operative fixation of the spine is a contribution of distinct value in that

1—It shortens the duration of the treatment,

2—It gives greater assurance against relapse than former methods of treatment,

3—It reduces deformity to a moderate extent, whereas this is frequently increased under older methods,

4—The operative mortality is very low.

DISCUSSION.

Dr. Joseph Smith, Wausau: Mr. President and Members of the Society. The hour is so late that I shall take occasion to refer to just one or two points in this very excellent paper which Dr. Gaenslen has presented. He has covered the subject in a very thorough manner, and I only wish to emphasize in the first place one point in diagnosis, and that is in regard to the acute onset of some of these cases. Many of these cases are diagnosed as rheumatism and treated for rheumatism, because they have a very acute onset, with severe pain, high temperature, and sometimes follow exposure or slight injuries. I presume the explanation of that is that the trauma or the exposure has simply served to bring on an acute disturbance in addition to the already pre-existing chronic condition.

The differential diagnosis between tuberculosis and aneurism is also one that must always be kept in mind in persons past middle life. The unfortunate combination of two internists and a radiographer in the case cited by Dr. Gaenslen seems to have held in a case that I had occasion to make an autopsy on, in which the wrong diagnosis had been made.

The important thing in the paper, and one which I am sorry Dr. Gaenslen did not have time to emphasize more particularly is the amount by which the duration of treatment is shortened by this method of treatment as compared with the older methods of fixation, extension, etc. We are all perfectly aware that the older methods obtained results, but we also know that they require long periods of time for treatment. Many of the orthopedic institutions receive these children with kyphosis, and they are kept on extension for one, two or three years. That is a very serious proposition for an adult or a person past middle life, because of the economic phase involved. It is a very difficult thing for a man or woman in the wage-earning time of life to be put to bed or put in extension for a period of one or two or three years. I think it would be of great interest to us all, and I am sure it would be to myself personally, to know just about how much this method of treatment shortens the duration of the cure. I think that is the important part of the whole subject.

Dr. J. A. Jackson, Jr., Madison. I should like to ask Dr. Gaenslen if he puts his cases in a cast at the time of operation, and how long he keeps them in that cast, that is, before he puts on his Taylor braces, or whether he uses any cast at all at the time of operation.

Dr. Pleyte, Wales: I should like to ask Dr. Gaenslen if he uses any spinal anesthesia in these cases.

Dr. F. J. Gaenslen, Milwaukee: As regards the time, I will say that the note of warning that has been sent out by men in the East has been followed by me, to continue brace fixation of some kind for a long time after the operation. One of my cases got up as early as the end of the third week, during an unobserved moment, and walked about the ward, and went to the toilet, and did not suffer any harm either to the leg or to the back, and the last reports of that patient were that he was doing very well. In other cases patients have gone back to work within eight or nine months after the operation, and I think perhaps a little earlier than that. As a rule I don't favor such an early return, but insist upon careful treatment for the tuberculous condition in general, believing that we have to build up the patient's general health just as we would in a case of tuberculosis of the lungs.

I should say that the time was shortened by operative treatment to half, probably, if one can be permitted to give figures.

I have used the plaster cast as a means of fixation immediately after operation in only a very few cases. I believe that the recumbent position on the abdomen, which allows inspection of the wound at an early date, is the position of choice. The children do not mind that position at all. Adults do object to it to some extent, and if they object too strenuously I turn them slightly to one side or the other, and brace up the back with pillows. In no case do I allow them to lie flat on the back. I had done that, and had one or two small pressure sores develop as a result, and, while no serious consequences resulted, pressure sores might endanger the graft.

Spinal anesthesia has not been used in these cases, because the patients necessarily must be operated upon in the recumbent and horizontal position, and I should be afraid of having the spinal anesthetic reach the vital centers in the medulla, especially, in high dorsal cases.

I have used ether anesthesia in all cases.

Properly operated tuberculosis hospital not a menace to health.—The officials of Atlantic County, N. J., decided to establish a tuberculosis hospital in the city of Northfield. The State board of health approved the site selected. The city and residents in the vicinity asked an injunction prohibiting the erection of the hospital. The court decided that the evidence did not show that such an institution, properly operated, was a danger to health, and refused to issue the injunction. (Northfield v. Atlantic County, P. H. R. Mar. 24, 1916, p. 791.)

ECHINOCOCCUS INFECTIONS, WITH REPORT OF CASES.*

BY STEPHEN CAHANA, M. D.,

MILWAUKEE.

Echinococcus Cyst is a disease caused by the parasite, Taenia Echinococcus. The disease was known to the ancient physician, as we find it mentioned in the writings of Hippocrates, Galen, and Aretaeus. Vega and Riverius described it more accurately. It was thought to be enlarged lymphatics. Palbas was the first one who proved them to be independent parasites, related to the tapeworm. Goeze confirmed Palbas' theory. The first accurate description of Echinococcus in the human body was published by Bremser in 1821.

As mentioned before, the exciting cause of Echinococcus disease is the parasite, Taenia Echinococcus. This parasite has its habitat in the upper portion of the small intestines of dogs, but it requires an intermediate host for the development of its life cycle. Man, ox, sheep, or horse may become the intermediate host. The ova of the parasite are evacuated with the feces, and may be taken into the human system through the medium of polluted drinking water. A more probable way of infection is from the caressing of dogs. The ova may be conveyed by dogs licking the human hand or face.

The physical characteristics of the Taenia Echinococcus, which is found in the dog, are those of a segmented worm, 4 or 5 mm. in length. It is composed or 3 or 4 segments. The last segment, the only one to become mature, is about 2 mm. in length and 0.6 mm. in diameter, and usually contains 5,000 eggs. The head has a rostellum surrounded by a double row of hooklets and four sucking discs. When the ovum becomes discharged from the dog and is ingested by man, the capsular membrane becomes dissolved by the alimentary juices, and the embryo, with its one sucking disc, surrounded by six hooklets, burrows through the wall of the alimentary tract. In this way it may enter the peritoneum or muscles or may enter the portal vein, thence to be carried into the liver. It may also enter the systemic circulation and become deposited in almost any part of the body. Having been thus deposited, its cycle development begins. It loses its hooklets and develops into a cyst. The presence of the cyst causes inflammatory reaction, and a protective connective tissue capsule is formed The cyst is composed of an outer laminated membrane and an inner granular parenchymatous endocyst. This is the mother cyst. Within the mother cyst, daughter cysts are formed from buds springing from the granular endocyst. These daughter cysts usually become detached from the point of origin of the mother cyst (endocyst) and contain the same structural elements as the parent cyst, and are capable in their turn of producing other cysts. From buds of the parenchymatous endocystic membrane, germinal capsules also spring, which form scolices, which in reality are the heads of the Echinococcus. The cyst contains a fluid, more or less turbid, with a specific gravity of from 1.007 to 1.015, usually neutral in reaction, rarely alkaline. Albumin is absent. The fluid sometimes becomes absorbed, leaving a thick mass within the cyst, which may become calcified.

Geographical distribution. Echinococcus Cyst is rarely found in the United States, England, France and Germany but is prevalent in Iceland, Italy, Roumania, Greece and Australia, especially in rural districts, where the number of dogs is large, and the domestic relations between man and dog are more close. Both sexes and any age, are affected alike. This condition is rarely found in infancy. Shepherds are more frequently affected, because of their occupation.

Symptoms. Echinococcus Cyst may exist for years without any symptoms whatever arising. As the tumor mass increases in size, it exercises a certain amount of pressure on neighboring organs. For years this may be the only symptom. In healthy cysts, unaccompanied by secondary infections, pain as a rule, is absent; so is temperature. In case of a dead cyst, a suppurating or ruptured cyst, a certain amount of toxin is produced which is absorbed in the system and gives rise to both a local reaction, viz., inflammation of the neighboring organs and to more or less toxemia, accompanied by pain and temperature. In case of an infected or dead cyst, albumin is always present in the fluid.

Pressure symptoms are dyspnea, cough, indigestion, vomiting, constipation and cardiac palpitation. Ascites, varicose veins, and jaundice are, as a rule, present in the later stages of the disease.

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*Read before the Medical Society of Milwaukee County, Jan. 12, 1917.

Diagnosis of Taenia Echinococcus is very difficult in the early stages of the disease, but is not quite so hard in advanced cases. A tumor of slow growth, elastic, fluctuating, with absence of pain, nearly always means an Echinococcus Cyst. Diagnosis can be confirmed by aspiration and especially by the discovery of the hooklets in the aspirated material. Santoni, in 1894, found that the stethoscope, by ascultatory percussion, reveals a special and peculiar sound of sonorous quality, of low tone, and brief duration, which ceases abruptly. It may be compared to the sound produced by striking a membrane, stretched upon a metallic frame. Santoni considers this sign very pathognomonic of the disease. The blood picture shows a marked eosinophilia in certain stages of the disease only. Badelli found 13%, Sabrazès 20%, Seligman and Dudgeon as many as 75%. The eosinophilia disappears after the operation. Chaufford claims that a persistence of eosinophilia indicates either an incomplete operation or the presence of another parasite. Eosinophilia, however, is not always present during the entire course of the disease.

Differential Diagnosis. Echinococcus Cyst must be differentiated from;

1. Cancer, which is more painful, firm and nodular; grows more rapidly, and produces emaciation and cachexia.

2. Abscess, where there is always high temperature and symptoms of sepsis.

3. Hydrothorax—by the change of the level of the line of dullness, with the change of position.

Duration of the Disease. The growth of the Echinococcus Cyst is very slow as a rule, but rapid growth occasionally supervenes. Barrier (Paris, 1840) records twenty cases in reference to the duration of the disease. In three of these cases, the disease lasted about two years; in eight it was present from two to four years, in four from four to six, in the remaining cases fifteen, eighteen, twenty, and even thirty years.

Of the two cases that came under my observation, the disease had given symptoms for twenty-two years in one, and the second case, a case of Echinococcus Cyst of the spleen, the disease gave symptoms for four years.

Prognosis is favorable if the cyst is removed surgically or if the cyst dies, otherwise it may prove fatal.

Prophylaxis. Too great familiarity with dogs should be avoided. An unusual itching and other evidence of anal irritation in the dog, should arouse suspicion of Echinococcus disease.

Treatment. The cyst should be removed intact, because the rupturing of the Echinococcus Cyst in the free abdominal cavity is very frequently followed by death. In case it rupture the cavity should be irrigated with iodine solution and drained.

The following two cases came under my observation.

CASE A.

N. P., 45 years old, laborer, native of Greece, married, has five children, all living and well.

Family history negative. Father and mother died of old age. Sister and brothers living and well.

Previous Illnesses. Had measles when a child. Was never sick, with the exception of slight colds.

Specific history negative.

Habits. Uses alcohol moderately, does not smoke.

Present illness began about twenty-two years ago when he was a shepherd in Greece. Had a heavy sensation in the abdomen, no special pain, bowels were sluggish at times and very loose at others, no fever, no chills. The abdomen became gradually larger and larger, but he paid no attention to it, as he had no pain whatever. About the latter part of May, 1915, while in North Dakota, working as a gang laborer for the railroad, he began to get high fever, accompanied by chills. The eyes became yellow and he could hardly breathe. He had severe pain in the right side, radiating upward to the shoulder blade. He left North Dakota and came direct to Milwaukee.

On physical examination, I found a temperature of 104.2°, pulse 120, respiration 36, marked dyspnea, patient fleshy, no emaciation, no history of loss in weight, eyes jaundiced, spleen slightly enlarged, abdomen very much enlarged. The liver was greatly enlarged, the lower margin of the liver reaching about 2½ inches below the umbilical line. Fluctuation was easily detected at each respiration and a metallic sound was heard upon auscultation. The urine was acid in reaction, the color of light

amber, with slight trace of albumin, no sugar was present. The microscopic analysis showed hyaline, and epithelial casts. No blood analysis was made. I sent the patient to Milwaukee Hospital with the diagnosis of Echinococcus Cyst of the liver. The diagnosis was confirmed by a surgical operation. Dr. R. G. Sayle performed the operation, making the usual incision and opened the liver with a cautery. Several hundred cysts, of various size, were released. The mother cyst was entirely removed and more than a liter of fluid of turbid color escaped. The cavity was irrigated with iodine solution, the opening of the liver stitched to the opening of the wound and drained. Moist boric acid dressings were applied. The patient was dressed daily. After 57 days the wound was entirely closed, and the patient went back to work three days later. I want to mention that the temperature went down to normal (98.2°) the third day after the operation and never reached more than 98.6° afterwards. On June 24, the urine was wine color and gave an acid reaction; specific gravity 1.032; no albumin, no sugar. Patient is in the best of condition now and works steadily since he left the hospital. Once a month he reports at my office for examination.

Case B.

A. D., 29 years old, laborer, native of Greece, married, has four children, all living and well.

Family history negative. Father and mother living and well. Has two brothers and three sisters all living and well.

Previous History. Had malaria when twelve years old.

Specific history negative.

Habits. Uses alcohol moderately, does not smoke.

Present illness began about four years ago, when he was in Greece. He had a heavy sensation in the stomach, after taking a few morsels. At first, he had no particular pain. The only pressure symptoms present, were those of distress after eating, and marked dyspnea.

Early in February, 1916, he came to my office. Upon physical examination, I found temperature normal, breathing labored, tumor mass visible over the region of the stomach. Fluctuation was easily detected at each respiration. The characteristic pathognomonic sign of Santoni was present. The urine was acid in reaction, and straw color, albumin and sugar negative. I sent the patient to St. Mary's Hospital with a clinical diagnosis of Echinococcus Cyst. The diagnosis was confirmed by a surgical operation. Dr. A. White performed the operation, making a medial incision below the ensiform cartilage, down to the umbilicus. A large cyst, 9 inches in diameter, which sprang from the lower portion of the spleen, was exposed. The cyst was removed intact by partial splenectomy. The incision was closed without drainage. The patient ran a high fever for a few weeks. He was able to leave the hospital in 35 days. The blood analysis, the day after the operation, showed a marked eosinophilia. The patient went to work three months after the operation and has been working ever since.

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ACUTE PERFORATING ULCER OF THE STOMACH AND DUODENUM.

REPORT OF TWELVE CASES TREATED BY SIMPLE SUTURE AND DRAINAGE. RESULTS.

BY J. P. CONNELL, M. D., and P. J. COLVY, M. D., FOND DU LAC.

The increase in the frequency of the occurrence of this condition prompts us to call attention to the importance of an early diagnosis and immediate operation if we expect to save the lives of these patients.

Our knowledge of the etiology of gastric and duodenal ulcer has been greatly increased within the past few years, and the reasons for our success or failure in treatment, both medical and surgical, better understood. But all this knowledge has not resulted in bringing sufficient attention to the increasing frequency, leading symptoms, and dire results of this one prominent accident which may occur at any time during the presence of an ulcer.

A correct knowledge of the symptoms and an ap-

preciation of the gravity of the case will result in a correct diagnosis and proper surgical treatment as the only means by which we may expect any results whatever. The symptoms of this condition are direct and positive. Anyone who has ever seen a case at the time the accident occurred, noted the sequence and severity of the symptoms as they developed will scarcely ever mistake the condition for anything else. Nor will anyone be likely to be misled if they will bear in mind a few of the most prominent symptoms, even though they have never seen a case, since there are very few conditions with which it could possibly be confused. The three cardinal symptoms when taken in connection with the history of ulcer are:

First: Pain, which is characteristic in its sudden onset, intensity and limitation to the upper abdomen and further the failure to obtain more than partial relief from the use of morphine.

Second: Shock, usually severe, with all its symptoms, especially in those cases where the perforation is sudden and complete with the escape of a large amount of gastric contents into the free abdominal cavity.

Third: The early and progressive development of a board like muscular rigidity of the upper abdominal wall, this rigidity coming on early even within the first half hour. Its severity and rapidity of development is seen in no other abdominal condition. Other symptoms, which usually accompany acute abdominal conditions, are of little value. It would be inexcusable to mistake it for acute hemorrhagic pancreatitis, which is rare and not accompanied by the same degree of muscular rigidity; rupture of the gall bladder is also rare and can be differentiated by comparison of the course and history of the two conditions. In the later stages when the peritonitis has advanced into the lower abdomen and down along the colon to the region of the appendix it may resemble acute appendicitis; but if we will note the muscular rigidity high up on the abdominal wall, and elicit in the history the severity and sequence of the symptoms as they developed we will not long remain in doubt.

The prognosis is good when the condition is recognized and operated upon within the first sixteen or eighteen hours. If we were to fix an arbitrary limit, we would say twenty-four hours. Every hour lost beyond this time limit decreases the chances of a successful outcome tenfold. There is no time to be lost in calculating the severity or amount of infection present in the gastric contents. This can usually be ignored, as the escaped gastric juice is usually sterile especially in the beginning, the ensuing peritonitis being the result of a chemical process rather than bacterial infection. We are confronted by an imperative duty to operate at once. This applies to the acute cases especially where sudden complete perforation has taken place with a rapid escape of stomach contents into the abdominal cavity.

In our experience founded upon twelve cases, seven duodenal and five of gastric perforating ulcer occurring during the past six years have had two cases, one running three days and the other five days before being operated, both recovering after operation. In both of these cases the perforation must have been very small and the amount of gastric contents escaping very limited. As the resulting infection, which invariably follows in the later stages, an abscess formed filled with pus, bile and stomach contents, walled off by the coils of the intestine and gastro-colic and gastro-hepatic omentum. These cases require only simple suture and drainage.

Two cases of the remaining ten of the series died. One was operated on twenty-six and the other thirty-six hours after the occurrence of the perforation. The remaining eight all operated on within the twenty-four hour limit, recovering promptly and within a surprisingly short time.

The surgical treatment consists in opening the abdomen through the upper part of the right rectus muscle. Locating the site of the perforation, the edges of the same are trimmed and sutured with chromatized catgut in such a way as to prevent further hemorrhage or leakage. If there is any trouble in locating the perforation, this can be done by slightly inflating the stomach with a tube through the mouth; the bubbles formed by the escaping air at the site of the perforation will give us definite knowledge as to its location. After the closure of the perforation is completed, the site of the ulcer is covered with the gastro-colic or gastro-hepatic omentum. Drainage is provided for through the operative abdominal wound, and if the gastric contents have escaped into the free abdominal cavity we must provide drainage at McBurney's point, or if into the pelvic portion, above the pubes. We have had no trouble with post-opera-

tive hemorrhage or recurrence of the ulcer. We must say that in view of the results we have had in our series of twelve cases we would not be justified in increasing the risk or complicating the operative procedure by doing a posterior gastro-enterostomy as advised by many excellent surgeons. None of the cases were accompanied by pyloric obstruction which, if present, would have demanded a gastro-jejustomy. Two of the cases, the ones operated upon the third and fifth days after the perforation had occurred were infected at the time of the operation thus precluding any attempt at doing a gastro-enterostomy without risking an extension of the infection to the whole abdominal cavity.

All of these cases were treated dietetically and medicinally after the operation to promote the healing of any other existing ulcer and to prevent the possibility of recurrence of the one operated on. We are not seeking to discredit the efficacy of gastro-jejunostomy in this class of cases especially when they are in the hands of surgeons of large experience and finished technique. But why complicate the procedure, when the results do not seem to justify it, since the simpler operation is sufficient and life saving.

So far as we have been able to learn none of these patients have had any recurrence of the trouble, although we have especially requested them to report any evidence of recurrence.

MILITARY SURGERY

GENERAL CONSIDERATIONS

THE TREATMENT OF WOUNDS AND INFECTIONS

By Gilbert E. Seaman, M.D., F.A.C.S.

Major and Chief Surgeon, Wisconsin National Guard

The problems that present themselves to the military surgeon are these:

1. To guard the health of the troops individually and collectively.

2. To rid the army in the most effective way of sick and wounded, the non-effectives.

3. To treat disease and wounds incident to the service and return as many as possible, in the shortest time, to duty.

The military medical officer then must combine in himself the qualities of the good doctor, the skillful surgeon, the sanitarian and the executive. In the military medical service, as in civil life, prevention is of far more importance than cure. It is now fully realized and acknowledged by both line and staff of all modern armies, that perhaps the most important factor in military success is the health of the command.

The military medical officer must therefore study the general situation bearing upon his problems in order that he may make available his knowledge of the special conditions involved in any scheme for conducting a campaign, with reference to the health and safety of the command.

Medical officers are called upon to study the plans of proposed operations in order to prepare and equip so that the campaign may not end in disaster on account of the ravages of disease and disability, and so that the campaign may be facilitated by the speedy and effectual ridding of the troops of the non-effectives, sick and wounded, and, finally, the medical officers must furnish to the sick and wounded prompt and efficient medical care and treatment, in line with the best and most modern knowledge on the subject.

The average civilian surgeon, no matter what his skill, strictly as a surgeon, is all but useless on the battlefield or in campaign unless he has had some training as a military medical officer, and we know that the man who has sufficient ingenuity to repair the broken leg of a chair, with a little special information added, may do a very good job at the amputation of a limb, but this is the least important of the considerations involved in the proper handling, treatment and disposition of men wounded in battle.

It is clear that time has not changed the two great principles of the treatment of wounds in war laid down by Baron Larrey, the master surgeon of the Napoleonic wars, and that these principles still have their direct application to the military surgery of the present day. First, the "24-hour principle," as it was spoken of by Larrey, which meant that if operation was needed at all that it was best done in most cases within the first 24 hours after the receipt of the wound, and this of course was an application of the principles of asepsis, later laid down by Lister, for, while Larrey did not realize it, he practically recognized that during the first 24 hours he was operating upon as clean wounds as he would ever have an opportunity of dealing with. The second principle Larrey called "the principle of humanity," by which was meant the completion of the operation in the minimum of time with the minimum of pain and distress to the patient, so that it still remains true that what happens to an injured man during the first 24 hours following his injury is of the greatest importance, and it is a source of great satisfaction to note that in the English, French and German services, at least, the transport system by which wounded are removed from the battlefield to the Field Evacuation, Base and Reserve hospitals is all that could be expected, and it is of common occurrence that men wounded in Flanders reach the hospitals in England within the first day after the

receipt of the wound, and likewise the Base and Reserve hospitals in Germany and France, over a system of transportation which, so far as can be determined by description, cannot be much improved upon.

In an address by Sir Almroth Wright, *British Medical Journal,* October 30, 1916, it is pointed out that the distinction between sick and wounded is from the point of view of science an entirely improper one. Those who are classed as wounded are as universally as perhaps even more universally than those classified as sick, suffering from bacterial infection. Since the days of Lister very little study has been devoted to the bacterial infection of wounds. The emphasis has been placed upon prevention rather than the successful treatment of septic infections of wounds. One lesson of this war has been to demonstrate that account must be taken of the effective treatment of infected wounds with regard to the various bacteriological considerations involved, and Dr. Wright points out the growing conviction that effective treatment will not be arrived at "without strenuous study of the infecting microbe, the conditions in the wound and the therapeutic agents which we employ, and the defensive operations of the organism."

Since the day when Lister first impressed his teachings in antisepsis and asepsis upon the medical profession, it has been the object of surgeons to obtain healing by first intention in the treatment of wounds. The effect of the great war in Europe has been very largely to compel surgeons to go back to the days when most wounds suppurated. It has demonstrated the uselessness of many of our supposed advances in surgery. Wounds in the present war are largely infected even before the possibility of first aid. The conditions surrounding the present methods of warfare and inherent in them are such as to favor and almost guarantee the infection of most wounds, especially shrapnel, high explosive, etc.

The battlegrounds of Europe are on fields that have been occupied and cultivated for centuries, and the soil of which is permeated with the fecal discharges of domestic animals and men.

The bodies and clothing of the soldiers are permeated with the mud and dust of infected soil. Facilities for bathing and changing of clothing are under these conditions necessarily limited or absent altogether, and days, weeks or months pass without the men having much opportunity for personal cleanliness. The lowering of physical vitality and the exhaustion incident to exposure, anxiety, loss of sleep and physical exertion naturally lowers the powers of resistance, and the wounded soldier becomes the more easily the victim of infection.

Forces and battles are being fought on the most gigantic scale. Methods of warfare hitherto unheard of are being used. Trench warfare seems largely to have supplanted the open methods of battle. Battles are being fought which last for weeks or months. More powerful guns are being used. Battles in some instances are almost continuous and the area, both in front and behind the troops on the firing line, is almost constantly swept by artillery. Necessary and desirable cessation in hostilities for the purpose of the removal of the wounded has been less considered than ever before, and the rendering of surgical aid made much more difficult. It has been necessary to bring in the wounded during lulls in the fighting or under the cover of night. Enormous numbers have fallen in all armies involved. Transport facilities in all the armies have been strained to the utmost, but notwithstanding this the medical departments of all the countries at war seem to have met the needs in a way that on first consideration would seem to be beyond human possibilities. Much has been learned. Doubtless many advances have been made and much has had to be unlearned and some things have been relearned. Why the earlier surgeons found it necessary to make such free and deep incisions. Why amputation was so frequent. Why they insisted upon the surgeon knowing his gross anatomy so intimately, and why the simple circular amputation with the open, exposed stump seemed preferable, and why large, wet dressings were so much in favor.

The character of the wounds, the nature of the infection and the enormous damage to tissues is far different under present war conditions than under those of previous wars.

Surgeons everywhere are endeavoring to meet the new conditions and doubtless will do so, but for the present we must consider that most wounds in war are infected and that the means of combating this infection, up to the present time at least, have not been and are not the most desirable and the most efficient.

But surgery has made distinct advances and methods are now being employed with better understanding and better reasons.

The X-ray is a wonderful advantage and enables the surgeon to do more directly and more intelligently what would have been impossible previous to the introduction and development of this wonderful aid. Laboratory methods leading to life saving suggestions are being rapidly developed.

THE TREATMENT OF WOUNDS

The necessity for a new method of treatment of wounds arose from the failure of our common antiseptics to prevent gas gangrene and wound infection, with their train of mortality and complications. It has been estimated that the indication for amputation was infection in 80 per cent of those operated, while extensive loss of tissue accounted for only 20 per cent of the sacrificed parts. Contractures, painful stumps and a series of complications of amputation result from infection. On good authority, 75 per cent of deaths after the first twenty-four hours are attributed to infection; secondary hemorrhage results from infection in 95 to 98 per cent.

The results of the studies of Sir Almroth E.

Wright have been set forth in his book on *Wound Infections,* published in 1915, the essential features of which may be stated as follows:

In this war wounds by missiles, when seen immediately after arrival from the front, present a mixed infection of streptococcus and fecal organisms, especially the gas bacillus and tetanus bacillus. These two are anaerobic, and are an infection of the imprisoned discharges or of the tissue. So soon, however, as a free outlet is provided an ordinary pyrogenic infection of the granulating surfaces and flowing discharges becomes dominant and is due chiefly to streptococcus, staphylococcus and B. Proteus. In treating such wounds there are three main methods:

1. By antiseptics.
2. By physiological methods, such as opening and draining, and bringing to bear the anti-bacterial action of the blood.
3. Vaccine treatment—to reinforce the anti-bacterial power of the blood.

Of these three methods, the second is by far the most important, the other two being but ancillary methods. Before discussing these methods of treatment, Wright asks the question: What are the physiological processes going on in such wounds? Chiefly two, as follows:

a. Growth and multiplication of the infecting organisms. Experimental grounds are given for classifying the infecting organisms as *serophytes,* which are at home and grow readily in the blood serum, such as the streptococcus; and *sero-saprophytes,* which cannot grow in the body juices until these have undergone some degenerating change. The organisms of both these groups, but especially the latter, only grow when the anti-bacterial action of the serum is in some way overcome; *e. g.,* by the mass action of many organisms or by heat. (Confirmed by experiments with trypsine in vitro.)

b. Emigration by leucocytes. Not much is definitely known about this, though results and some experiments are given.

Treatment of Wound Infections

1. By antiseptics.

Antiseptic solutions are nothing more than antiseptic prophylactic applications, and were Lister's great discovery, namely, the means of keeping wounds clean, etc., etc. The principle has its great field in modern operative surgery, but has no special use in wound infections of war, except as an adjuvant, the reason being that antiseptics can not sterilize an infected wound, for if only a few organisms are left in the wound, on account of their rapid multiplication in the digested lymph, the number in a few hours is as great as before antiseptic solutions were used. The mere fact of frequent necessary redressings of the wound occurring means that a tryptic discharge is present, one that digests the skin and granulating surfaces, affords a medium for the sero-saprophytes, and indicates that we are back where we were at the last dressing. Moreover, antiseptics may do harm, both by diminishing the anti-tryptic power of the blood, and sometimes also by actually stimulating bacterial growth.

2. Treatment by physiological methods. Fundamentally this consists in bringing the anti-bacterial power of the blood serum into play.

I. *Methods* in practice it is accomplished:

a. By opening and draining pus cavities.

b. By free incision through infected tissue from sound skin to sound skin, and down to healthy tissue below.

c. By unrestricted mechanical drainage when amputating through infected tissue, even to the point of sacrificing flaps altogether if necessary in cases of gas bacillus infections.

All of these three means act, and only act, by bringing the anti-bacterial agencies of the blood into play. For example—in opening and draining an abscess we prevent the mass action of the bacteria from overcoming these anti-bacterial agencies. We drain away the white blood cells in the abscess, because they are paralyzed and killed and the anti-bacterial power of the lymph in the abscess has been lost. The supplementary surgical procedures contribute to the same end, namely:

Drainage Tubes which help to keep up and permit an effluent anti-bacterial lymph stream to pass through the walls and into the cavity.

Free Incisions in infiltrated tissue only partly succeed on account of the lymph spaces being blocked by leucocytes and coagulable discharge.

Hot Fomentations. By inducing active hyperaemia, permit lymph flow and also soften and macerate inflammatory exudates.

Leaving Wounds Wide Open gives mechanical, unrestricted drainage.

II. *Desiderata in physiological treatment of wounds,* which from this point of view are regarded as of two types:

Type 1. Recent projectile wounds, supurating cavities, old supurating wounds that have just been washed clean. There is desired here a free outflow of lymph to wash organisms out of the walls, to carry in phagocytes, and be a good medium for phagocytosis; and it is desirable also that this lymph have the power to repress bacterial growth, and also that its antitryptic power should be high.

Type 2. Infection and infiltration in the wall of a cavity and in the adjacent tissues. Here the same principles apply as in Type 1, though sometimes it

would be desirable to have the ability to repress emigration of leucocytes, and also to render lymph uncoagulable. To realize these desiderata we require:

1. An agency powerfully to increase lymph flow.
2. Probably, at certain times, an agency to repress or promote emigration of leucocytes. This is not possible to present knowledge.
3. A means of increasing the anti-bacterial power of the lymph, both with respect to the infecting organisms as well as the sero-saprophytes. This, however, is vaccine therapy, q. v.

As aids to an increased lymph flow, we have hot fomentations and the application of Wright's solution, namely, a 5 per cent sodium chloride and a ½ per cent sodium citrate, solution. This solution, he says, has proved pre-eminently useful in the war. Practically, therefore, treatment by physiological methods means continuous irrigation or continuous baths, up to the point when the wound is thought to be sterile, then it should be closed, or allowed to heal under a scab, always, however, proceeding by the method of trial and error.

Treatment by Vaccine Therapy

As before stated, this is always ancillary to the physiological methods, and is often of the most striking value, though not, unfortunately, in the worst cases, *e. g.*, streptococcus septicaemia. Vaccine therapy is considered under five sub-headings:

1. Prophylactic. Not used in this war to any extent, as it does not appeal to the medical officers, but from experience with cholera, typhoid, etc., we know that it would be of value.

Note: This statement must be modified in the light of later reports on prophylactic use of anti-tetanus and anti-gas bacillus serum.

2. Employment of vaccines when the infecting organisms invade neighboring tissues, either as lymphangitis or cellulitis (erysipelas). Here the use of vaccine is most successful, just as in civil practice.
3. Employment of vaccine in connection with well drained wounds; strikingly favorable results as obtained.
4. Employment of vaccines in imperfectly drained wounds. Not sufficient experience as yet, but possibly of some use.
5. Employment of vaccine in wound septicaemias. Here their use is wholly unfavorable, though the hope is expressed that further experiment may find a favorable way of employing them.

Sir A. E. W. thinks that all treatment of infected wounds should be regulated by orders and instructions, and gives the following outlines of organization of the Service for the Treatment of the sick and wounded:

There should be a Head for this service, who would, of course, be subordinate to the Director General. This Head should have the aid of an advisory committee of men who would be, or had been, workers at the front, and should include surgeons, medical men, specialists and laboratory men, and the head of this service, with their aid and advice, would draw up and issue, and as occasion occurred, revise and reissue orders and instructions for the care of wounded. To this service also should be attached a research department. (H. V. Ogden.)

THE CARREL-DAKIN METHODS

Dakin's solution was introduced in the latter part of 1914 and the Dakin-Carrel method of treatment was introduced in the early part of 1915, following many months of experiment by Dakin and Carrel, and since the summer of 1915 the present technique has been in constant and widespread use, particularly in the armies of England and France. It is not claimed by its authors to be successful in all cases of infection, but it is claimed that infection can be prevented or aborted in the vast majority of cases. The approved technique for the making of Dakin solution must be followed. It is of great importance to use it early. The solution should penetrate all parts of the wound. The products of infection, namely, pus, decomposed or necrotic material, are expected to disappear in from a week to two weeks. Granulations take on a healthy appearance, the discharges become free from odors, the healing process progresses and the early suture is permitted. Success is claimed for the Dakin-Carrel treatment in 80 per cent of the cases, presupposing that the solution is properly prepared and that the treatment is thoroughly and intelligently carried out.

In a recent address at the Army Medical School, Washington, Dr. Carrel says, Military Surgeon, April, 1917: "The clinical researches made at the experimental hospital at Campeigne have shown that by using proper technique wound infection can be almost entirely controlled and that pus can be eliminated completely from the hospitals. This conclusion was the result of the work that Dr. Dakin and I started at the end of 1914, in France, and continued later with the help of Drs. Dehelly, Dumas, Daufresne, Jaubert, Woimant, Vincent, Bernond and Lecomte de Nouy. It had become apparent to me at the beginning of the war that the main cause of mortality among the wounded was infection and that all our effort should be directed toward a method by which infection could be suppressed. It was also evident that on account of the difference of the resistance of tissues, with normal circulation, and of micro-organisms, sterilization by a chemical substance was possible, and that a bactericidal substance applied under a certain concentration and during a certain time

would kill the microbes without markedly injuring normal tissues. Dakin found a number of substances which, being but slightly caustic for the tissues, can be used in a wound in a sufficiently strong concentration and during the time necessary to bring about sterilization. We selected the simpler of these substances; that is, sodium hypochlorite without alkali in a concentration of 0.5 per cent. This surgical hypochlorite is designated under the name of Dakin's Solution and it should be prepared exactly according to the directions of Dakin and Daufresne. If not, it becomes caustic for the tissues or inefficient against the bacteria.

"It should be understood that the application of Dakin's solution by means of ordinary surgical technique does not bring about the sterilization of a wound. The success of the method by which an infected wound is made aseptic is due not only to the bactericidal power of the substance used, but mainly to the procedure by which the substance is applied. Certain conditions of contact, of concentration and duration of application make its action efficient. The method must be used as a whole with no modification of its parts. I am not able, in this short time, to give a description of the technique which is used in the sterilization of a wound. The principle of the method is to bring the bactericidal substance in close contact with the microbes under a given concentration and during a given time. Therefore, the tissues are to be very widely opened, any foreign bodies removed and small rubber tubing inserted in every recess of the wound. Afterwards the fluid is brought in contact with every part of the wound at the proper concentration. The concentration can be maintained constant only by bringing fresh fluid, all the time, to every part of the wound. Therefore, every two hours, the wound is flushed with Dakin's solution. The antiseptic should be used until all microbes have disappeared from the wound. This means about forty-eight hours for a surface wound, and generally from six to ten days for other wounds. It means also that bacteriological examinations of the wound should be made every two or three days, because clinical appearances of the wound alone do not show at what time complete sterilization has taken place. When both clinical and bacteriological examinations of the wound show that it is sterile, its edges are brought together by adhesive plaster or stitches, and union takes place in a few days.

"The method is not complicated, but it is impossible to learn the procedure in a few hours. About three weeks are required for an experienced surgeon to learn how to sterilize a wound. When the surgeon applies, exactly, the technique, sterilization results rapidly, especially if it is freely opened and treated during the first twenty-four hours. If the patient be treated when the wound has begun to supurate, disappearance of the pus takes place rapidly—after from two to four days generally—and the sterilization can be obtained and the wound ultimately sutured.

"The saving of time and of money brought about by the complete sterilization of wounds is very striking. Of 136 wounds treated in my hospital in December, 1915, 121 were closed before the twelfth day. As the normal cicatrization of most of these wounds would have taken, by ordinary methods, from thirty to sixty, or even 100 days, it is easy to understand the saving of money which was affected. If we assume that every wounded man costs $2 per day, it will cost the country $180 if he stays ninety days in the hospital. If the wound is healed in twenty days, it represents a saving to the country of $140, and for 1,000 wounds, the saving of $140,000. In cases of fracture it is also possible to decrease in a large measure the length of treatment. It happens often that a badly infected fracture of the femur is still supurating after 300 days. However, if we take the trouble to sterilize such a wound, we can close it after twenty days. A patient discharged after 100 days instead of after 300 days, means a saving of $400. Therefore, 100 fractures of the thigh treated in the proper way will save the country $40,000. Besides, the degree of permanent disability and the amount of pension paid to a man whose wound has not supurated is very much less than when infection has required his remaining in the hospital for a year or more. When we consider that statistics based upon more than 50,000 amputations show that 70 per cent of these amputations are due to infection, we can readily see that 50 per cent of the amputations might be avoided by proper treatment."

DAKIN'S SOLUTION

The following is from a paper read before the French Academy by H. D. Dakin, Ph.D., the title of which is: "On certain active antiseptic substances suitable for the treatment of infected wounds."

"The relatively low germicidal action of the more commonly employed antiseptics is, as is well known, still further reduced when these antiseptics act in the presence of serum or other protein substances. It is probable that the killing of micro-organisms by antiseptics is largely a chemical reaction between the antiseptic and the protein substances of the micro-organisms. Since the practical employment of antiseptics invariably occurs in the presence of large quantities of protein substances other than those of bacterial origin, it is probably true that no relatively simple chemical antiseptic can be found which will react solely with the micro-organisms and not with the adjacent protein substances. In seeking an efficient antiseptic for use in infected wounds it would appear that the following points, among others, are of the first importance:

(*a*) To employ substances of such high germicidal activity that even when the activity is reduced by the presence of serum or other protein powerful antiseptic action may still persist. Or, in other words, to employ substances which give actively antiseptic substances after combination with proteins. The complete failure of mercuric chloride to respond to this demand may be cited. (*b*) It would appear probable that soluble salts, nonprecipitable by proteins, which

may penetrate and be absorbed to some extent, are preferable to substances of other type in which the possibility of absorption and penetration are slight. (*c*) The toxicity and capacity for inducing local irritation of an antiseptic should be as low as possible in proportion to its bacterial activity in order to permit of the local employment of a sufficiently large quantity of the antiseptic without unfavorable results. It is clear that if germicidal action is essentially a chemical reaction in which other proteins than those of bacterial origin may take part, it is most important that the active mass of antiseptic should be as large as possible.

Among the antiseptics which have already been considered in connection with the treatment of infected wounds the hypochlorites most nearly respond to the criteria above set forth. Unfortunately, however, the hypochlorites of commerce are of very inconstant composition and generally contain either free alkali or free chlorine. Such substances are irritating and when used in moderate concentration may produce very unfavorable results. It appeared desirable to try and find a mode of preparing a solution of a hypochlorite of constant composition which woul show high bactericidal activity and low toxic or irritating qualities. The following method has proved successful:

Two hundred grains of bleaching powder are added to 10 liters of water, in which 140 grains of dry carbonate of sodium have been dissolved. The mixture is well shaken, and after half an hour the clear liquid is siphoned off from the precipitate of calcium carbonate and filtered through cotton. To the clear filtrate enough solid boric acid is added to render the liquid *acid* with an aqueous suspension of phenolphthalein, but *alkaline* to tournesal. About 25 to 30 grains may be required. The exact amount of boric acid to be added may be conveniently determined by the titration of 10 c.c. of the alkaline hypochlorite solution with a solution of boric acid of known strength (31 grains per liter). In preparing a dilute solution of hypochlorite as the above, which will contain about 0.5 per cent NaClO, an excess of boric acid is unobjectionable, but in the case of stronger solutions an excess must be avoided.

A solution prepared as above described containing 0.5 per cent NaClO, kills staphylococci in 2 hours when diluted to a concentration of less than 1 to 500,000 NaClO, while in the presence of blood serum the necessary concentration of NaClO is between 1 to 1,000 and 1 to 2,500. Such a solution has proved to be a useful antiseptic in the treatment of infected wounds when properly applied by methods which will be described later by Dr. Carrel. Wounds may be constantly irrigated for many days without producing noticeable irritation, and bacteriological examinations of the wound secretions demonstrate a vigorous antiseptic action. In addition to its antiseptic action, the solution exhibits marked capacity for dissolving necrotic tissue and has some hemostatic action. From a practical standpoint, the property of assisting the dissolution of necrotic tissue is important.

It is probable that the antiseptic action of hypochlorites is due to their containing chlorine in an active state which may replace hydrogen atoms attached to nitrogen in the (NH) groups present in proteins, forming substances of the group known as chloramins. It was of interest to investigate substances of this type, and with the co-operation of Prof. J. B. Cohen, of the University of Leeds, a large number of these derivatives have been prepared and tested. The most encouraging results have been obtained with the sodium salts of aromatic sulphochloramids, particularly the benzene and paratoluene derivative.

These substances are active antiseptics, practically nontoxic, and their aqueous solutions can be employed for the antiseptic treatment of wounds in a far higher concentration than is possible with the hypochlorites; but, on the other hand, as would be expected from their structure, the chlorine being already bound to nitrogen, they show little capacity for assisting in the dissolution of necrotic tissue.

Paratoluene sodium sulphochloramid kills *B. perfringens* in water acting for 2 hours at a concentration of less than 1 to 10,000,000, while in the presence of serum the concentration necessary is between 1 to 2,500 and 1 to 5,000. With staphylococci the concentration is about 1 to 1,000,000 in water and 1 to 2,000 in serum, while *pyocyaneus* requires about 1 to 1,000,000 in water and 1 to 1,500 in serum for complete sterilization in 2 hours.

The Carrel-Dakin treatment does not guarantee a cure for all wounds but presents the best results yet produced in their treatment. It consists of the application of the Dakin hypochlorite solution according to an established technique of Carrel. The solution is a constant factor and the variable, which explains so many failures, is the careless application of Carrel's technique.

Note: The Dakin solution is a 0.45 per cent to 0.50 per cent solution of sodium hypochlorite and is prepared as follows by the technique of Daufresne.

For 10 liters stock:

a. Put 200 grams of the chloride of lime (containing 25 per cent active chlorine) and 5 liters of water into a 12 liter flask. Shake vigorously until all large and floating particles disappear. Then set aside for 6 to 12 hours.

b. At the same time dissolve 100 grains of sodium carbonate, dry, (soda of Solway) and 80 grams of sodium bicarbonate, dry, in 5 liters of cold water.

After 6 to 12 hours pour *b* into *a*, shaking well and setting aside to permit sodium carbonate to precipitate. Siphon off liquid and filter through double paper.

This stock solution is bottled in brown or blue

containers well stoppered and stored in a cool, dark place. It is unstable and should be tested frequently.

The original Dakin's solution was too strong, 0.5 per cent to 0.6 per cent hypochlorite; above 0.5 per cent is irritant, below 0.4 per cent ineffectual.

Reactions Needed to Test Dakin Solution.

I. *To determine free active chlorine* in bleaching powder or chlorine of lime: mix 20 grams of the submitted sample in 1 liter of water and leave in contact for 2 hours. Then take 10 c.c. of this liquid and add 20 c.c. of a 10 per cent potassium iodide solution and 2 c.c. of acetic acid (to free the hydrochloric acid). Next titrate drop by drop with decinormal sodium hyposulphite (2.48 per cent). End point—the complete decolorization. By the multiplication of the number of cubic centimeters of hyposulphite used by 1.775 the weight of active chlorine per 100 grams of bleaching powder is derived.

II. *Titration of Dakin solution:* To 10 c.c. of Dakin solution add 20 c.c. of 10 per cent potassium iodide solution and 2 c.c. acetic acid. Titrate with decinormal sodium hyposulphite. End point—complete decolorization. Cubic centimeters of sodium hyposulphite solution times 0.03725 equals the weight of hypochloride of soda in 100 c.c. of Dakin solution.

III. *Alkalinity of Dakin solution:* Tested by dropping dry phenolphthalein on the solution in question. No change in color with Dakin but Lebarraque's and eau de Javel give intense red due to free caustic alkali.

Dakin solution is non-toxic and can therefore be used in any quantity without fear of toxic reaction. In its present modified form Dakin solution is non-irritant. It is strongly bactericidal to all pyogenic micro-organisms. Then, too, the hypertonicity of the hypochlorite solution causes a pouring out of lymph and toxemia from absorbed bacterial proteins is uncommon.

Wounds treated with Dakin solution in an early stage do not become infected. If infected, the Carrel-Dakin treatment changes the purulent discharge to a serous one, granulations become healthy, the fetor is lost and necrotic tissues disappear in 5 to 7 days.

The application of the Dakin solution after the method of Carrel spells the success of the treatment. Its fundamental points are the intermittent rather than continuous use of the hypochlorite and the insured contact of the same with every contaminated or traumatized tissue.

Note: A new compound, chlorazene, has been found quite effectual. It is stable, contains chlorine in a combined form, which is liberated in the presence of the protein of the tissues. Chlorazene has many of the virtues of Dakin solution and may be used in a paste with sodium stearate as a base. Its chief recommendation is its stability.

Carrel outlines the following routine:

1. First dressing at the *field station:* Surround area involved with tincture of iodine. Pack wide open wounds loosely with gauze saturated with Dakin solution. Deep wounds with narrow skin aperture are injected with this solution.

2. At the *base hospital:* The general surgical methods for the ligation of vessels, the removal of shell fragments, etc., are followed. The shell tract is opened and devitalized tissues removed. Then Carrel tubes are carried to the bottom of the wound and gauze loosely packed between and about the same. Determine before completing the dressing the amount of solution ncessary to flood the wound and the thoroughness of the irrigation. The final dressing to be placed over the whole is a gauze pad saturated with Dakin solution. On top of this a large pad of non-absorbent cotton (to prevent absorption of solution) or Turkish toweling is placed. Hypochlorite is very destructive to cotton fabrics.

Certain apparatus in the shape of a glass irrigating bottle graduated in cubic centimeters, glass drips to regulate the flow of the solution and rubber tubing to the manifold glass outlets needs no further explanation. The Carrel tubes, however, leading from the glass outlets to the bottom of the wound are an innovation. They are pure rubber tubing (fabric will not collapse and is quickly destroyed by hypochlorite), 15 to 25 cm. long, with an outside diameter of 5 mm. and a lumen of 3mm. The distal end is tied off with Pagenstecher linen or strong silk. Then with a special punch, holes ½ mm. in diameter are put in tube at intervals of ½ cm. The alternate holes, of which there should be 6 to 12, are placed at right angles.

Every precaution is taken to carry the tubes and the loosely packed gauze to the depths of the wound. The number of tubes depends entirely on the extent of the wound and care is exercised not to kink or place these tubes under pressure.

The flow of the hypochlorite solution is controlled by the height of the irrigating bottle, three feet elevation being the rule. The wound is kept flooded. Pain is an indication either of too great pressure or of alkalinity in the solution. The intermittent flooding at two hour intervals day and night has been attended by the best results.

Carrell advises daily redressing, using the forceps and never touching the skin or wound with the hands. The edges of the wound are protected with gauze of No. 4 bandage width, saturated in yellow liquid vaseline. The wounds heal by first intention without drainage or reaction in 90 per cent of cases treated by the Carrel-Dakin method from the beginning.

Certain precautions must be observed in the pursuit of this treatment:

1. Never heat the solution nor bring it into contact with alcohol.

2. Keep cool and dark.
3. Never use in eye.
4. Do not use intravenously since Dakin solution is hemolytic.
5. Compound fractures, which are to be operated later, should not be supported by metallic braces when the hypochlorite is being used, on account of its exidizing action.

Note: I am indebted for this resumé of the technique and use of the Carrel-Dakin treatment to the article by Sherman (Surgery, Gynecology and Obstetrics, March, 1917), and to 1st Lieut. W. C. Middleton, M. R. C., Madison, Wis.

COMPULSORY HEALTH INSURANCE.

RESOLUTION ISSUED BY SOCIAL INSURANCE DEPARTMENT THE NATIONAL CIVIC FEDERATION.

WHEREAS, a nation-wide propaganda is at present being carried on in favor of Compulsory Health Insurance by the several states and the Federal Government; and

WHEREAS, the project is made to rest largely upon mere assertions and broad allegations regarding the unsatisfactory economic and health conditions of the country, which assertions and allegations are false and seriously misleading in essential matters of vital concern to all wage earners and the nation at large; and

WHEREAS, in support of this propaganda it is asserted and alleged that the social and sanitary progress of Germany and other European countries which have adopted compulsory health insurance has been far in advance of the corresponding progress of the United States, which is wholly false and seriously misleading, since, as a matter of fact, more pronounced progress in these directions has been made in the United States during the last quarter-century, and the social and physical condition of American wage earners is unquestionably superior to that of the corresponding labor element of European nations, as best indicated by the recent announcement of the United States Census Office that during the year 1915 our general death rate was the lowest on record, which may safely be accepted as the equivalent of a minimum rate of serious sickness prevailing among our wage earners at the present time; and

WHEREAS, such a system of compulsory health insurance would impose needless economic and other burdens and duties upon employers, employees and the general tax-paying public; bring about an entirely unnecessary enlargement of the police powers of the states; establish new and inquisitorial health functions to the serious disadvantage of the future progress of preventive medicine and the practice of medicine as a healing art; and

WHEREAS, the evidence is thoroughly convincing that a compulsory health insurance system is entirely unnecessary as a health measure because of the favorable health conditions prevailing throughout the country as best reflected in the fact that during 1916 the death rate of the City of New York was the lowest on record, and that during the last twenty years there has been an average reduction in the New York City death rate of 40 per cent, against a reduction of only 28 per cent in the death rate of the City of Berlin; and a reduction of 44 per cent in the death rate from pulmonary tuberculosis of the City of New York, against a reduction of only 37 per cent for the City of Berlin; and

WHEREAS, voluntary agencies serving social insurance purposes, such as sick benefit funds of trade unions, or establishment benefit funds, or fraternal insurance societies, or group insurance, or other related forms of voluntary thrift, offer adequate facilities for further development in the future; and

WHEREAS, compulsory health insurance is strongly opposed by organized labor, which rightfully considers such a measure to be a menace to its economic interests and a needless interference with its personal freedom;

RESOLVED, That the Social Insurance Department of The National Civic Federation, composed of representatives of organized labor, organized industry and the interests of the general public, emphatically declares itself opposed to the contemplated legislation with reference to compulsory health insurance, as inimical to the best interests, present and future, of the workers of the nation.

February 20, 1917.

PROFESSIONAL BUSINESS NEEDS SUPPLIED BY YOUR COUNTY MEDICAL SOCIETY.

The Wayne County (Michigan) Medical Society is supplying "First Aid" to its members by the operation of "The Detroit Physician's Business Bureau."

This was formed eighteen months ago by the appointment of a committee of six, who constitute the Board of Control.

An office was opened in our Medical Building and an exceptionally competent office girl placed in charge.

The Board elected a Chairman, Manager, and a Secretary-Treasurer.

The Board meets each Monday noon for lunch, at which time the week's business is reviewed and all questions of policy decided.

We felt, after consideration of the subject, that there were several ways in which we could aid the business end of practice.

1st. Conducting an educational campaign on business methods for physicians.

2nd. Preventing bad accounts.

3rd. Collecting bad accounts.

4th. Correcting abuses of contract practice, especially as coming under the Workmen's Compensation Law.

Educational Campaign.—We have tried to aid our members in installing simple but accurate bookkeeping

and record systems. We have given several programs on Business Methods, before our Society. We have published short articles on Business Efficiency in our Society Weekly Bulletin. We have written other articles for our State and other Journals. We have gone before several sister Societies with our plans, urging them to establish similar bureaus. We had an exhibit at this year's American Medical Association meeting.

Preventing the Growth of Bad Accounts.—We have a card index of all the debtors reported to us by our members, with credit rating, which we have given them after investigation. This rating is accessible to all members by phoning the Bureau. We are about to publish a Rating List of the eight or ten thousand debtors whom we have investigated. This will prevent our members giving credit to unworthy patients.

Collecting Bad Accounts.—We collect our members' accounts by letter, collectors and attorneys, the percentage of cost being from ten to thirty-five per cent.

When a doctor joins our Bureau he is given ten Form Letters No. 1. This letter is a polite reminder that the account will be sent to the Bureau for rating and collection, if not paid within ten days. If the debtor pays the account upon this notice, there is no charge for collection. Thousands of dollars have been collected this way. If the account is not paid within ten days the account is sent to the Bureau, when a second letter is sent, giving the debtor ten days more to pay the bill before the account is taken out by the collector. If it is paid upon this notice, our member is charged ten per cent.

If the account is paid through the efforts of the collector, our member pays us thirty per cent. Failing in this, upon consent of the member, the account is given our attorney, who collects the bill, by suit if necessary. This costs the member thirty-five per cent of actual moneys collected. Having gone through this process a debtor is given a rating.

We feel that we have improved on the ordinary collection agency or collection attorney in the following particulars:

Our collction fee average is lower.

We remit to our members the first of each month, all money collected on his accounts, less our commission.

Accounts may be withdrawn upon a three months' written notice.

Accounts given our attorneys remain the property of the Bureau at all times.

Our office help, collectors and attorneys, are all bonded.

No salaries are paid except for actual office work.

There is no retainer or membership fee, providing our applicant is a member of our County Society. (Nonmembers pay an annual fee of $3.00 to $5.00; hospital fee $10.00.)

We furnish ratings.

We endeavor to educate the debtor to be an A-1 pay patient.

Correcting Abuses of Contract Practice.—Since the passage of the Working Men's Compensation Law, many disputes have arisen over the payment of bills for professional services to physicians chosen, by the injured employe, to care for him.

Several insurance companies, also several large manufacturies who employ first aid men or physicians to care for their injured, have refused to pay for services rendered by the physicians or surgeon chosen by the injured employe. We have tried to adjust these accounts; we have had to bring some of these contract physicians before our Society's Ethics Committee. We are taking some of these accounts to the State Arbitration Board and will sue others if necessary.

There are many other phases of the work not touched yet that we hope to take up later.

As a business proposition it has been a success. We were given $250 to experiment with. We have free rent in the Medical Building. We have bought office equipment to the value of $175.00. We had a bank balance September 1st of over $500, our own money, and have collected in the eighteen months $23,060.64, divided as follows: By the office, $5,026.03; by collectors, $12,868.50; by attorneys, $5,166.11, at an average cost of collection to the member of 26 7/10 per cent. Our average monthly office expense (July 1st) was $77.09.

Conclusion.—Have your County Society try it.

HOWARD W. PIERCE.

NUXATED IRON FOR THAT TIRED FEELING.

Is there to be a Renaissance of the testimonial epoch? Ten or fifteen years ago the testimonial industry was at its height, especially as it is applied to medicinal products. Every "patent medicine," however quackish, was able to publish testimonials from persons whose position, if not their intelligence, should have made them hesitate to give such endorsements. Those were the days when "Peruna" published panegyrics from such notables as Admiral Schley, Rear-Admiral Hichborn, Julia Marlowe, etc., when the praises of "Duffy's Malt Whiskey" were declaimed by Sarah Bernhardt, the virtues of "Fahrney's Blood Vitalizer" sung by Schumann-Heink, and the attributes of "Electric Bitters" immortalized by Champ Clark. Those were the happy days of the "patent medicine" vendor. Neither should it be forgotten that the writing of testimonials for the so-called "ethical proprietaries" had become an ingrown habit with the medical profession. Then the light was turned on. Lay magazines exposed the fraud and viciousness of the "patent medicine" business, while The Journal demonstrated by numerous examples that a large proportion of the proprietary medicines sold for physicians' prescriptions were little, if any, better, than the "patent medicines." Gradually, testimonial writing became unpopular, at least among the intelligent portion of the population. Physicians virtually abandoned the practice, while among laymen it gradually became confined to the ignorant and credulous. Recently there have been indications that the habit is being re-established. Hence, the question with which this comment begins. Our readers will remember

that Mr. Jess Willard credits "Nuxated Iron" for his victory over Mr. Jack Johnson, while Mr. Ty Cobb declares, in very black type, that this panacea is responsible for his "winning" qualities. Now comes the Hon. William E. Mason, former United States senator, now congressman-elect from Illinois, advising the people of the United States that "Nuxated Iron Should Be Made Known to Every Nervous, Run-down, Anemic Man, Woman and Child." This is the same Mr. Mason whose name appeared as "General Counsel" of the "International Institute for the Treatment of Tuberculosis" operated by the "rupture-dope-dyspepsia-consumption-curer," O. E. Miller. When The Journal called Mr. Mason's attention to the questionable company in which his name appeared he pleaded ignorance of the nature of the "Institute" and withdrew from it. Doubtless when his attention is called to the "Nuxated Iron" quackery, he will ask those who are responsible for the quarter-page advertisement now appearing in the newspapers to return his photograph and testimonial. Congressman Mason testifies that he had suffered greatly from "that horrible tired feeling." After reading the testimonial, those holding old-fashioned ideas of the dignity and intelligence that should characterize the House of Representatives will appreciate just what a "tired feeling" means.—*Jour. Amer. Med. Assoc., Feb. 24, 1917.*

LEADING EDUCATORS PRESS FOR PHYSICAL TRAINING IN PUBLIC SCHOOLS.

Adopting as its slogan President Wilson's recent statement that "physical training is needed but can be had without compulsory military service," a committee of leading educators has been formed to press for the adoption, in the various states, of a "model" state bill, drafted by Dr. Dudley A. Sargent of Harvard, providing for the introduction of physical training, without military features, in the public schools. The new committee, which bears the title of "*The Committee for Promoting Physical Education in the Public Schools of the United States,*" has opened headquarters in the Munsey building, Washington, D. C., with Mrs. Harriet P. Thomas as secretary in charge.

The committee consists of Dr. John Dewey of Columbia University; J. Y. Joyner, state superintendent of public instruction, North Carolina; Mrs. Ella Flagg Young, former superintendent of schools in Chicago; President David B. Johnson, of the Winthrop Normal and Educational College of Rock Hill, South Carolina; Carroll G. Pearse of Milwaukee, president of the Milwaukee State Normal School; Mrs. Mary C. C. Bradford of Denver, state superintendent of public instruction of Colorado; Francis G. Blair, state superintendent of public instruction in Illinois; Mrs. Josephine Preston, state superintendent of public instruction in the state of Washington; and Dr. Sargent, the physical education expert of Harvard.

In its announcement the committee says, in part:

> We believe that the time has come when the public schools can, and should, enter deliberately and purposefully upon a definite plan for the preparation of our youth physically for the exigencies of life and for all the demands of citizenship. We need to spend more money and more time upon physical training intended to develop the body so that both boys and girls may be prepared equally for the pursuits of peace or the vicissitudes of war.

The bill is officially entitled "a bill to upbuild national vitality through the establishment of physical education and training in the public schools of the state." It is described as a tentative draft which may be easily modified to meet the varying financial and educational conditions in the different states. Its proponents are careful to assert that they are not proposing to impose an "elaborate and expensive machinery" upon any state—merely to indicate the way to begin in the belief that public opinion has now been educated to the point where it will support physical training in the schools especially when that training is shorn of military features.

The bill, with suitable modifications, has been introduced this week in the Massachusetts General Assembly (by special consent) and in the legislatures of California and Indiana. Its introduction in other states is expected to follow shortly.—*Exch.*

Inadequate Salvarsan Treatment of Syphilis. Lüth remarks that tertiary manifestations of syphilis are being encountered now of a severer character than before the days of salvarsan. The latter is not responsible for this, but the fact that the course of treatment was inadequate. He explains why inadequate salvarsan treatment entails more serious results than inadequate mercurial treatment, saying that insufficient doses of salvarsan, too small to destroy the spirochetes, actually breed a strain of more resistant spirochetes, according to the biologic laws of immunology. The patient is thus worse off than if he had been given no treatment at all. The spirochetes are more resistant and more virulent, and thus conditions for their attacking the nervous system are rendered more favorable. In the meanwhile the patient has been losing strength and may not then be able to produce antibodies enough to give a positive Wassermann reaction. The danger of breeding an extra-resistant strain of spirochetes, by inadequate salvarsan treatment, is materially reduced when mercury is given with it from the beginning. He makes a practice of this, as he describes in detail. There is no doubt, he adds, that insufficiently treated syphilis runs a much severer course under salvarsan than in the old days of mercury alone. He warns further that treatment with salvarsan requires specialist skill and experience, guided by the blood findings and the entire course of the disease and the results of treatment, possibly calling on the neurologist and ophthalmologist, if we are to ward off indescribable misery from the present and the next generation.—*J. A. M. A., Mar. 3, 1917 (Abs.).*

THE WISCONSIN MEDICAL JOURNAL
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Vol. XV. May, 1916 No. 12

EDITORIALS

YOUR DUTY!

OUR COUNTRY IS AT WAR! YOU HAVE ENJOYED THE BENEFITS OF THIS GOVERNMENT. YOU HAVE RECEIVED A SPECIAL EDUCATION AND TRAINING IN HER UNIVERSITIES. AT THIS TIME THERE IS A DEMAND FOR MEN SHE HAS EDUCATED AND YOUR COUNTRY EXPECTS YOU TO SHOW YOUR GRATITUDE. WISCONSIN MUST DO HER SHARE BY FURNISHING AT THIS TIME A RESERVE CORPS OF SIX HUNDRED PHYSICIANS WHO ARE READY AND WILLING TO DO THEIR SHARE IF THEY ARE NEEDED. A THOUSAND WISCONSIN PHYSICIANS HAVE FAILED TO SEND IN THE BLANK WHICH WAS FURNISHED THEM. ARE THERE "SLACKERS" IN OUR PROFESSION? AN INVENTORY OF MEDICAL RESOURCES AT THIS TIME IS ABSOLUTELY NECESSARY! IT IS YOUR DUTY TO FILL IN THE BLANK PRINTED BELOW AND MAIL TO THE WISCONSIN COMMITTEE TODAY!

Name..... Address.....
I was born at..... on the
.....day of .....1.....
When and where naturalized (if of alien birth)?
.....
Medical graduate of..... ....
year..... specialty.....
Married or single?.....Height?.....
Weight?..... No. of children.....
Any physical infirmity? What.....
Have you made application for or do you hold commission in Medical Reserve Corps? Which?
.....
If needed I prefer service in (Army, Navy, Red Cross, National Guard).....
I hereby signify my willingness to serve my country when needed and to that end wish to join the Medical Officers Reserve Corps now.
Signed.....
(If unable to join now but wish to later, please report to that effect.)

IMPORTANT.—Fill in blank and mail immediately to DR. ROCK SLEYSTER, Secretary Wisconsin Committee for Medical Preparedness, Waupun, Wisconsin.

AN EXPLANATION.

FROM time to time there have been articles and editorials in the JOURNAL dealing with Compulsory Health Insurance. The purpose was and is to get the men to read and study this problem. We understand that there is some tendency to look at this matter lightly, to pass it up and to have preconceived notions about it. We urge the men not to assume this attitude as indifference may spell our undoing at some future date.

An editorial in the April issue has been criticised. Exception has been taken to the manner of expression. We are sorry. It was not meant to

have the savor of finality or to appeal to the emotions. We hoped to stir up discussion not to quench it. There is a committee of the State Medical Society now studying this problem from every angle and trying to disseminate information. This committee is to report to the House of Delegates. Let no one infer that the JOURNAL and the Committee are pulling against each other because there seems a difference of opinion. Our aims are the same. None of us is doing propaganda work for or against the proposal but we are trying to find out what is best. Hence the editorial columns are open to both sides of the question and for free discussion. There is no reason why articles against the movement should not be put in the JOURNAL as well as articles for it. (The Editor won't promise that he won't write from the opposite angle at some future time.)

Seek all the information you can get. Look in the Jour. Amer. Med. Assn., April 28th, 1917, p. 1278, and read Dr. Rubinow's reply to Mr. Frederick Hoffman.

This is going to be the most vital question which has ever touched the Medical profession and we do not want to be caught misinformed on any phase of it.

COMPULSORY HEALTH INSURANCE.

AN editorial on Compulsory Health Insurance in the April issue of the JOURNAL was so definitely antagonistic in spirit to the investigational work now being carried on by the Committee on Social Insurance of the State Medical Society that the committee feels called upon to protest. Our protest has no personal animus in it, but it must be vehement to meet the situation.

The Social Insurance Committee was originally appointed by Pres. L. F. Jermain. It made a preliminary report to the House of Delegates at the last annual meeting. An essential recommendation of that report was that the medical profession should refrain from criticism and opposition not based on careful study; and especially that even well founded criticism should be made to appeal to the head rather than to the heart. The House of Delegates went on record as approving of the *principle* of social insurance and continued the committee with instructions to persist in the study of the question in all of its bearings, to report its conclusions at the next annual meeting, and in the meantime, if the need should arise, to represent and to guard the interests of the members of the society in the state legislature.

The committee has been doing its full duty. It has been devoting itself to a serious and open-minded study of the entire question, it has been attempting more or less successfully to bring reliable information upon the subject to the notice of the medical men of Wisconsin, and it has kept in close touch with the legislative situation at Madison. *There is absolutely no danger that this legislature will put any social insurance bill upon the statute books.* The most that will be done will be to empower a committee to study the question and to report its conclusions to the next session of the legislature. This fact gives *us* time to study the question as it should be studied by scientific men, without feeling and without appeal to feeling. Our appeal should be to reason.

While there is no present danger of precipitate legislation, there is grave danger for the medical profession in just such a spirit of destructive criticism as appeared in the above mentioned editorial. Such criticism appeals to feeling, invites pre-judgment and tends to bring all discussion to a close. It was based, as the author himself implies, upon the theory of individualism, an outworn theory which was scrapped by practical and scientific men many years ago for a better method. *That method is co-operation.* Individualism as a working theory (it never was a method; it was a lack of method) for the medical profession of Wisconsin would make the same sorry spectacle of us that it made of the English medical men in their lost strike against social insurance. Mass action based on conviction, this in turn based on scientific and unfeeling knowledge of the subject, would gain for us the respect that is our due and would go far toward securing for us whatever it is that we will come to see as the correct solution of this great social problem.

The Committee on Social Insurance does not wish to stifle discussion. It is proper that the editorial and other columns of the JOURNAL should be open to arguments on all sides of the question. But it believes that it has the right, as an official working committee of the state society, to ask that the editorial columns of the official state journal treat this subject in a purely argumentative way, without recourse to dogmatism. The problem of this committee is largely educational; educational

for itself and educational for the members of the State Medical Society. It needs the co-operation in this undertaking of all the medical forces of the state. It wants in the end to have the medical profession of the state know this subject and know itself, and to present a solidarity of conviction that will carry conviction to others. There is real danger, however, unless the discussion is carried on academically and dispassionately, that the profession will close the discussion in temper, divided against itself.

The Committee on Social Insurance is made up as follows: A. W. Gray, Chairman, Milwaukee; G. Windesheim, Kenosha; W. F. Zierath, Sheboygan; M. R. Wilkinson, Oconomowoc; C. H. Lemon and J. M. Beffel and H. E. Dearholt, Milwaukee. Mr. George G. Goetz, 710 Pabst Bldg., Milwaukee, is acting as secretary of the committee under arrangement with the Wisconsin Anti-Tuberculosis Association. The detail work has become so enormous that a paid worker is a necessity. The State Medical Society of Wisconsin is under deep obligation to the W. A. T. A. and to Dr. Dearholt, its Executive Secretary, who is also our President, for having taken care of this necessity for us.

Mr. Goetz is prepared to send to members of the society any information or literature that it is possible for the committee to furnish under the appropriation allowed by the society. Literature which we cannot furnish gratis will be charged for at cost. It is the wish of the committee to furnish this literature to all members of the society who wish to inform themselves, or to tell them where the literature can be obtained. It will be impossible for the committee to carry on arguments by mail. It cannot as yet assume the position of advocate for or against any plan of insurance proposed.

Mr. Goetz has already addressed a number of county societies. It is expected that he will be called upon by others. As a lawyer he has been able to bring to bear another view-point than the purely medical, while his study of the subject as a whole has given him a sympathetic insight into all the problems, medical, social and industrial, that are involved.

In their meetings the members of the committee have tried to differentiate clearly between argumnts for and against the principle of social insurance, and arguments for and against plans and methods for enforcing the principle. We commend this differentiation to members of the society. We find that much that is written on the subject is very disorderly in this respect, and that much that is published of discussions in medical societies is even more disorderly.

In its meetings the committee has been going through mental processes, not brainstorms. It has been thinking not feeling. We commend this attitude of mind to the medical profession of Wisconsin. By this method the committee is beginning, it thinks, to get a faint glimmer of understanding of this large subject. By next fall we may be able to report definite progress.

Finally, in its meetings the committee has kept always in mind that while its first duty was that of good citizenship, and good citizenship must consider carefully the welfare of the entire community, nevertheless our primary obligation as a working committee was, is, and must be, to see that every moral and legitimate interest of our profession is conserved. The committee does not think that the welfare of the community as a whole and the welfare of our profession are incompatible. In fact it cannot see—it is inconceivable—that any plan of social insurance can be successful without the hearty co-operation of a satisfied medical profession. In our minds this must mean not only adequate compensation for our services, but proper recognition of our ideal in professional accomplishment, both remedial and preventive. We have faith that if the principle of social insurance is adopted in Wisconsin a method will be found, with the help of an united medical profession, to bring this all about.

A. W. Gray, *Chairman,*

Committee on Social Insurance.

BICHLORIDE OF MERCURY POISONING.

In view of the numbers of cases reported in the newspapers of fatal poisoning with bichloride of mercury, an article which has recently appeared on "Calcium Sulphide, as the Chemical and Clinical Antidote for Mercuric Chloride Poisoning, with Experiments and Case Reports" is of particular interest.

The basis for the investigation was the hypothesis that if $Hg\ Cl_2 + Ca\ S$ in the test tube formed two inert substances, $Ca\ Cl_2 + Hg\ S$, then this chemical affinity might be available to the body

and neutralize the poisonous effects of corrosive sublimate. Experiments were carried on in dogs and rabbits in order to test out the hypothesis. In the course of these experiments it was found necessary to antidote the cages as the discharges and vomiting of the poisoned dogs were sufficient to contaminate the cages and produce fatalities in other dogs placed in the cages later.

Dogs which had received a certain lethal dose of bichloride after 48 hours were saved by intravenous injection of calcium sulphide grain for grain dissolved in the proportion of one grain of calcium sulphide to one ounce of tap water, boiled and filtered through cotton. It was further found that the calcium sulphide should be fresh. An old lot which had been exposed to the air was definitely toxic. Bichloride is rapidly absorbed, so rapidly in fact that gastric lavage or the administration of egg albumen is practically useless. Two grains internally is said to be a fatal dose. Calcium sulphide may also be given by mouth, two to five grains every hour until all symptoms of poisoning have disappeared. When the case is seen early this is said to be sufficient to neutralize the bichloride. After twelve hours it is best to combine oral and intravenous medication.

Dr. Wilms* relates clinical cases treated by this chemical antidote method with marked success. It certainly is worthy of trial. We should feel, however, that during this specific medication one should not neglect to give all the fluids possible both intravenously, subcutaneously, and by rectum. There should be abundant opportunity for carrying out this line of treatment. It is to be hoped that the results are all that are claimed for this simple method.

REDUCING SUBSTANCES IN URINE.

ATTENTION has been called from time to time to the very obvious fact that all urines which change Fehling's solution are not necessarily sugar-containing. There is a great difference between reduction and decomposition of the test solution. It must be borne in mind that the typical reduction produced by glucose is the precipitate of brick-red copper oxide. Even the faintest trace of sugar in urine will show a certain amount of red oxide if the tube is allowed to stand long enough for the precipitate to settle.

Occasionally reports are made of sugar in urine when the reducing substance is not only not glucose but is no form of carbohydrate. One of the most frequent errors is due to a concentrated urine containing urates in excess. We have seen this mistake made in life insurance examinations with the result that there was endless trouble experienced in order to clear the unfortunate applicant. Albumin in any quantity may also cause a pseudo-reduction when the solution is too vigorously boiled. One substance which must not be confused with glucose is lactose, which may occur in the urine of any woman late in pregnancy and during lactation. If one attempts to differentiate between lactose and glucose by yeast fermentation, he may have trouble for commercial yeast will break up lactose with gas formation after 8 or 10 hours or even less. During lactation a non-typical reduction of Fehling's solution with a yellow but not red precipitate and a delayed fermentation speak for lactose. We call attention to this matter simply to put physicians on their guard. Diabetes is so often "cured" in a short time that we should be sure of our diagnosis.

*Calcium Sulphite, as the Chemical and Clinical antidote for Mercuric Chloride Poisoning, with Experiments and Case Reports.—*J. H. Wilms, Jour. Lab. and Clin. Med., 1917, II, 445.*

STATE OF WISCONSIN,
SURGEON GENERAL'S OFFICE,
MILWAUKEE.

Milwaukee, Wis., April 26th, 1917.

To all Medical Officers and Examining Surgeons, W.N.G.

Enclosed herewith is Circular No. 5. War Department, April 6th, 1916, containing rules for the examination of recruits, organized Militia. This circular must be strictly followed in the examination of recruits. Every Medical Officer and examining Surgeon should make himself familiar with its provisions, and have it where he can readily refer to it in making examinations.

The physical examination of recruits is a serious duty to be performed intelligently and conscientiously, and in accordance with regulations. The Medical Officer who slurs the examination of a recruit and who admits to the military service men who are clearly unfit for that service, commits an offense against the recruit, against the military organization and against his country. He fails in his duty as a Medical Officer and he violates his oath of office.

Where serious doubt exists as to the physical efficiency

of a recruit the safe rule is to reject. Where men are accepted with physical defects, not causes for rejection, such defects must be noted on the physical examination blanks.

Where waiver of defects listed as causes for rejection is advised, Medical Officers must be convinced that the recruit will be able to do his full duty under the most trying military conditions, and that such advice on the part of a Medical Officer or medical examiner can be fully justified both from a medical and a military standpoint.

Medical Officers and examining surgeons are of course expected to exercise their medical judgment and skill guided by the rules laid down in Circular No. 5, or such modifications thereof as may be duly authorized by competent authority.

GILBERT E. SEAMAN,

Major and Chief Surgeon.

TO BRO. CHARLES S. SHELDON, IN HIS GOLDEN JUBILEE YEAR OF GRADUATION, APRIL 18, 1917.

Brother! Since on your Doctor's natal day,
Full half a century on its fleeting way,
Has left its yearmarks on your placid brow,
And taught strange lessons, you alone know how.

How long the span when from the stage of youth,
We peer into the future for the truth;
When from the mid-day summit we descend,
How short the path that leads us to the end.

But he who labors for his kind and race,
Keeps up with time on wings of rapid pace,
An inward silent voice will not refrain,
But whispers "Freedom from another's pain."

No doubt is thine to wreck thy fearless thought,
Through all the year thy mind is firmly taught,
To go where coward dare not stand nor dwell,
To harbor secrets gossips fain would tell,

No failure thine, for sacred is your art,
To succor and to save is the divinest part;
From earliest time, down through the ages ran,
The holy order, "Serve the living man."

Fear not the years to come! Continue on thy way;
The future as the past thy conscience will repay;
And when thy service to mankind shall cease,
The still small voice within shall whisper "Peace!"

—S. W. F.

According to a chart recently prepared for the Bureau of the Census, people in the country live longer than those in cities, and women live longer than men.

PEDICULARIA CASTE.

There is more caste in the louse family than in all the crowned heads of Europe and East India, not to mention the rock-bound caste that exists among the various brands of addicts gathered under one roof to be cured.

Though bound together by the closest of family ties and morphological relation, P. Capitis, P. Vestimentorum, P. Pubis and P. Palpebrarum do not so much as bow as they pass. Doubtless, in some happy days long gone by, they were a happy family, content, peacefully to roam the entire human body in search of pastures green and ripened field. But a family row must have occurred and doubtless recourse was had to the louse court with petition to divide, parcel out and apportion the earth of the human frame, especially the forestry rights thereon. Thus the nomadic characteristic of the family was to a considerable extent lost—for one of the principal features of the louse caste is that it is the height of bad form and miserable etiquette to wander far afield from the domain conferred finally by the louse supreme court.

For instance, P. Capitis is a most exclusive individual. Not for worlds would he stick his haustellum into the follicles of any skin save that of the scalp. He is a stay-at-home body, not at all tempted by the greenness of distant pastures, even though alopecia of various etiology may make his pickings meager.

Poor P. Vestimentorum. In the suit for division of the family estate he must have had a very young and inexperienced louse lawyer. For he drew a most undesirable portion of the estate, being in truth, the outer lying portion officially described as the vestments. He is forced to live largely on the European plan, residing in one place and taking his meals in another. He lives for the most part in the seams of the bodily vestments and must journey to the skin for restaurant privileges. He promptly returns to his official residence after feeding. He is fortunate in one respect, however. He does not have to dig for his food. Four long plows with sharpened points on his host keep the surface well plowed and without difficulty he projects his haustellum into the underlying follicles.

P. Pubis, alias crab louse, alias morpion, is a bird of far greater democratic tendencies than any other member of the family. His habitat is the pubic region, masculinus and femina, but occasionally he wanders afield into the contiguous regions of the abdomen, chest, axillae, beard, eye lashes and eye brows, thus violating most fearfully the family tradition. Of all the tribe, he is the most energetic and prolific. Two of the female of the species (certainly in this case the most deadly) can become the grandmothers of 10.000 lice in eight weeks' time. How do we know? Yes, indeed, how do we know?

Such a question!

We know—because we had a friend who counted them, polling every one. In a private communication he informs us that he was interrupted in the course of his count to ask a mathematician friend what came after a billion. P. Palpebrarum is closely akin to P. Pubis. At

times they have even been known to keep company, but not often.

The louse family does not bite; possibly it would be better if they did bite, taking a good, firm hold and then turn loose, like any other self-respecting animal. They wax fat by inserting their haustellum into the follicles of the skin, allowing the aforesaid haustellum there to linger indefinitely.

The mention of a certain name is terrifying to this pirate crew. The cognomen, "John D. Rockefeller," puts them in a panic. Kerosene John has the force which will put billions of the tribe to disgraceful flight and finally bring disaster and death.—*Memphis Medical Monthly*, Apr., 1917.

"Open" and "Closed" Tuberculosis. Effler protests against the classification of cases of tuberculosis merely by the presence or absence of tubercle bacilli in the sputum. Many regard the case as contagious or non-contagious solely from the sputum findings on one or two or more examinations. Cases are common in which, if the examinations are repeated often enough, bacilli finally appear in the sputum. He cites some cases in which the examinations repeated several times in the course of two or three months, gave positive findings after two or three negative examinations. Gerhard used to tell of a case in which only the fifty-ninth examination gave positive findings. The prevalence of tuberculosis in cadavers suggests almost that there must be still some other mode of contagion than from the sputum alone. It is incredible that this enormous number of infections comes from those alone who have tubercle bacilli in their sputum. In short, Effler declares, any tuberculous person with sputum must be regarded as contagious, whether tubercle bacilli can be found at the moment or not. As for that, he adds, the absence of sputum is only a transient phase, which at any moment may take an unfavorable turn. Tuberculosis must be regarded not as a condition but as a living process, and be managed accordingly.—*Abs. in J. A. M. A., Feb. 24, 1917, from Zeitsch f. Tuberkulose, Dec., 1916.*

Eclampsia Rare on War Diet in Germany. According to an abstract in a Danish exchange, the statistics from the largest three maternities in Berlin show that eclampsia is comparatively rare at present. The proportion has dropped in one maternity from 2.6 per cent of 2.004 childbirths in 1913 to 0.8 per cent of 1,430 in ten months of 1916; in the Charité, from 2.4 per cent of 3.570 births to 0.57 per cent of 1,400, and at the Virchow Hospital from 1.2 per cent of 3,664 childbirths to 1 per cent of 2,462. Warnekros and Ruge ascribe this reduction of the number of cases to the changes in the diet imposed. In the cases in which eclampsia occurred, it was mild and brief, practically abortive. In the one exception, a quite severe case, it was found that the woman's husband, being a diabetic, had secured large extra amounts of meat and butter. The tables given show that the number of cases of eclampsia was less in 1913 than in the year or two before, a gradual decline being evident; but, since the war began, the drop has been at the Charité 75 per cent, and at the women's clinic over 66 per cent. The conclusion seems inevitable that restriction of fat and meat tends to ward off eclampsia. —*Jour Amer. Med. Assoc., Mar. 3, 1917.*

Significance of Xanthochromia of Cerebrospinal Fluid. Five clinical cases and an analysis of 100 cases from the literature form the basis of this report. Sprunt and Walker have previously called attention to the clear, yellow spinal fluids occasionally observed at lumbar puncture. These fluids are divided into two main groups: 1. Those in which the color is due to dissolved hemoglobin or its derivatives, and which as a rule do not coagulate spontaneously and contain only a small amount of globulin. Such fluids usually are associated with brain tumors in contact with the meninges or ventricles. 2. The larger and more important group comprises those cases showing the so-called Froin's syndrome, in which the fluid is transparently clear, yellow, coagulates spontaneously, contains large amounts of globulin, may or may not show pleocytosis, and gives no positive tests for hemoglobin. This is a "compression syndrome," its main determinants being the isolation of a lumbar cul de sac, in which the spinal fluid stagnates, and probably some vascular changes within its walls. Clinically, with negative roentgenogram of the vertebral column, it is strongly suggestive of a tumor of the spinal cord, although it may also be associated with intradural inflammatory processes.—*J. A. M. A., Mar. 3, 1917 (Abs.).*

Mortality from Cancer and Other Malignant Tumors. The mortality from cancer and other malignant tumors in the death-registration area of the United States has been increasing almost continuously for the past fifteen years. It is greater in urban than in rural localities; among females than among males; among whites than among Negroes; and among persons in middle life and old age than among those in early life. Deaths due to cancer of the stomach and liver represent more than three-eighths of the total.

Among both males and females, cancer of the stomach, liver, pharynx, and esophagus accounted for a greater proportion of the total deaths from cancer—approximately 47 per cent. among males and 32 per cent among females—than is shown for any other group. The death rates from this class of cancers were 29.6 per 100,000 for males and 30.7 for females.

New York—Tuberculosis.—The New York workmen's compensation law provides for compensation for "accidental injuries arising out of and in the course of employment and such disease or infection as may naturally and unavoidably result therefrom." The commission decided that a workman who was disabled by getting wet, and "contracted a heavy cold and pleurisy, which developed into pulmonary tuberculosis," was entitled to compensation, and the New York Supreme Court affirmed the decision. (Rist v. Larkin & Sangster, P. H. R. June 30, 1916, p. 1719.)

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NEXT ANNUAL SESSION, MILWAUKEE, OCTOBER, 1917

The Wisconsin Medical Journal, Official Publication

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Eau Claire	H. F. Derge, Eau Claire	L. H. Flynn, Eau Claire.
Fond du Lac	G. B. McKnight, Fond du Lac	F. M. McGauley, Fond du Lac.
Grant	J. C. Doolittle, Lancaster	M. B. Glasier, Bloomington.
Green	W. B. Gnagi, Monroe	L. A. Moore, Monroe.
Green Lake-Washara-Adams	G. E. Baldwin, Green Lake	J. A. Wiesender, Berlin.
Iowa	G. H. McCallister, Avoca	J R. Hughes, Dodgeville.
Jefferson	A. A. Busse, Jefferson	W. A. Engsberg, Lake Mills.
Juneau	Brand Starnes, Mauston	A. T. Gregory, Elroy.
Kenosha	C. R. Caughey, Kenosha	J. F. Hastings, Kenosha.
La Crosse	G. W. Lueck, La Crosse	J. M. Furstmann, La Crosse.
Lafayette	J. C. Hubenthal, Belmont	H. O. Shockley, Darlington.
Langlade	M. J. Donohue, Antigo	J. C. Wright, Antigo
Lincoln	H. G. Hinckley, Merrill	Herbert Saylor, Merrill.
Manitowoc	J. F. Pritchard, Manitowoc	A. J. Shimek, Manitowoc.
Marathon	W. A. Green, Wausau	F. H. Frey, Wausau.
Marinette-Florence	H. F. Schroeder, Marinette	Luella E. Axtell, Marinette.
Milwaukee	P. F. Rogers, Milwaukee	Daniel Hopkinson, Milwaukee.
Monroe	A. R. Bell, Tomah	Spencer D. Beebe, Sparta.
Oconto	C. W. Stoelting, Oconto	T. C. Clarke, Oconto
Oneida-Forest-Vilas	W. C. Bennet, Rhinelander	C. A. Richards, Rhinelander.
Outagamie	G. A. Ritchie, Appleton	M. E. Rideout, Appleton.
Ozaukee	F. E. Coerper, Fredonia	C. E. Balkwill, Grafton.
Pierce	W. A. Lumley, Ellsworth	R. U. Cairns, River Falls.
Portage	W. W. Gregory, Stevens Point	J. D. Lindores, Stevens Point.
Price-Taylor	H. M. Nedry, Medford	E. B. Elvis, Medford.
Racine	J. H. Hogan, Racine	Susan Jones, Racine.
Richland	C. F. Dougherty, Richland Center	Gideon Benson, Richland Center.
Rock	T. W. Nuzum, Janesville	E. B. Brown, Beloit.
Rusk	Julian C. Baker, Hawkins	L. M. Lundmark, Ladysmith.
Sauk	F. D. Hulburt, Reedsburg	Roger Cahoon, Baraboo.
Shawano	M. P. Cady, Burnamwood	W. H Cantwell, Shawano.
Sheboygan	Otho Fiedler, Sheboygan	C. N. Sonnenburg, Sheboygan.
St. Croix	Philip McKeon, Clear Lake	O. H. Epley, New Richmond
Trempealeau-Jackson-Buffalo	O. O. Nelson, Arcadia	C. F. Peterson, Independence.
Vernon	J K. Schreiner, Westby	F. E. Morley, Viroqua.
Walworth	M. D. Cottington, Lake Geneva	Edward Kinne, Elkhorn.
Washington	J. G. Hoffman, Hartford	A. H. Heidner, West Bend.
Waukesha	H. A. Peters, Waukesha	S. B. Ackley, Oconomowoc.
Waupaca	W. Irving, Manawa	G. T. Dawley, New London.
Winnebago	J. W. Lockhart, Oshkosh	F. H. Hunt, Oshkosh.
Wood	Ed. Hougen, Grand Rapids	W. M. Ruckle, Grand Rapids.

SOCIETY PROCEEDINGS

CALUMET COUNTY

APRIL MEETING.

Calumet County Medical Society met at Kiel, April 9th, at the home of Dr. F. P. Knauf. The meeting was called to order by the president, Dr. E. L. Bolton. All members were present with the exception of one. The object of this meeting was the appointment of a committee of five, namely, E. L. Bolton, F. P. Knauf, N. J. Knauf, E. T. Rathert and C. L. R. MacCollum, to be known as the Auxiliary Committee of Calumet County. The Society by a unanimous vote agreed to join the Red Cross Society. Compulsory Health Insurance was discussed and the "Hay-seed" M. D.'s of Calumet County have come to the conclusion that the fees under the panel might suit our "city brothers" but that they do not suit us. A protest was sent to our representative at Madison to kill Bill 381S. Meeting adjourned for supper.

C. L. R. MacCollum, M. D., *Secretary.*

CHIPPEWA COUNTY

Chippewa County Medical Society held their regular meeting in Hotel Chippewa in Chippewa Falls, April 19, 1917. After careful deliberation and consideration of the proposed Health Insurance all members and the local society in general decided to oppose legislation on same.

All members volunteered their services if needed by our government.

F. T. McHugh, M. D., *Secretary.*

EAU CLAIRE COUNTY.

The Eau Claire County Society on April 30, 1917, heard a paper by Dr. E. F. F. Richards of St. Paul on some medical problems in the European War zone, which was most interesting. Dr. E. E. Tupper read a paper on "Pituitary and Obstetrics." There were twenty members present.

L. H. Flynn, M. D., *Secretary.*

IOWA COUNTY

The annual meeting of Iowa County Medical Society was held in the Commercial Club rooms in Mineral Point, on April 26th. Officers for the coming year were elected as follows: president, Dr. H. D. Ludden; vice-president, Dr. W. S. Lincoln, Dodgeville; secretary-treasurer, Dr. J. Hughes, Dodgeville; delegate, Dr. D. B. Hamilton, Ridgeway; alternate, Dr. Ernest Ovitz, Linden. The society discussed the question of forming a hospital unit. This will again be discussed at the coming meeting in May.

NINTH COUNCILOR DISTRICT.

The annual meeting of the Ninth Councillor District Medical Society was held May 17 and 18. Dr. Smith of Wausau was in charge of the program.

RACINE COUNTY

The regular meeting of the Racine County Medical Society was held March 17, 1917, at the Commercial Club rooms, Racine. Dr. Robert H. Ivy, Milwaukee, addressed the meeting on the subject of "Mouth Infections in Relation to Septemic Diseases." There were twenty-two present.

Susan Jones, M. D., *Secretary.*

ROCK COUNTY

Rock County Medical Society met at Janesville on April 25th, 1917, for the regular monthly meeting, at the Myers Hotel. Dr. John Nuzum, of Cook County Hospital, Chicago, lectured on Infantile Paralysis Serum. The lecture was illustrated. Dr. J. F. Pember, Janesville, spoke on "Medical Aspect of Gastric and Duodenal Ulcer."

The next meeting will be the annual banquet meeting and will be held on May 29th at the Myers Hotel. Dr. Kellogg Speed of Chicago will speak of his experiences in the war hospitals of France.

WALWORTH COUNTY

At a meeting of the Walworth County Medical Society held at Elkhorn on April 7, 1917, Dr. M. D. Cottington, Lake Geneva, was elected president; Dr. James M. Marsh, Elkhorn, vice-president. Dr. Edward Kinne, Elkhorn, secretary and treasurer; Dr. B. J. Bill, Genoa Junction, censor; Dr. J. Howard Young, Elkhorn, delegate. An auxiliary committee for medical defense was also appointed: Dr. J. Howard Young, Elkhorn, president; Edward Kinne, secretary; James M. Marsh, Edward J. Fucik and Milton V. Dewire.

WINNEBAGO COUNTY-OSHKOSH MEDICAL CLUB

Dr. Corbett entertained the Medical Societies on Saturday evening, March 17, at 8:30. The doctor's well known hospitality in giving his annual "Green Dinner" plus Dr. Charles H. Lemon's address on Serous Meningitis as a Sequel to Comparatively Mild Injuries to the Cranium" assured us a grand good time.

Wilbur N. Linn, M. D., *Secretary,*
Oshkosh Medical Club.

NEWS ITEMS AND PERSONALS

Recently Dr. L. H. Prince of Madison was complimented as the discoverer of the drop method of administering ether. About 20 years ago while an interne in the Augustana Hospital in Chicago, Dr. Prince tried out this method which proved so successful that its use has now practically supplanted other open methods. This credit coming to Dr. Prince is a little late but it is all the more flattering.

Dr. E. J. Barrett, Sheboygan, has received a commission in the Medical Officers' Reserve Corps, U. S. A., with the rank of major.

Dr. L. P. Stamm, Milwaukee County Hospital, has received a lieutenant's commission in the medical corps, U. S. Naval Reserve, and has gone to Chicago.

Dr. D. R. Lee, Ridgeway, who is a member of the Missouri state guards, has been called to the colors and has joined his company.

Dr. H. C. Mix, Green Bay, has been appointed a member of the Medical Reserve Corps, with the rank of first lieutenant.

Dr. Francis T. Dolan, Cashton, formerly of La Crosse, has left Cashton to assume his duties as Naval Surgeon for the United States.

Dr. F. W. Gobar has been appointed health officer for the village of Muscoda.

Dr. Marshall Surenson of Viroqua, has been appointed medical director of the Rosencrans Sanitarium at Prairie du Chien.

Dr. George M. Smith, Chippewa Falls, has retired as city physician, because his private practice is such that he cannot give his time to the work of city physician.

Dr. C. L. Storey, Whitehall, has arrived safely in England and entered a military hospital as surgeon.

The residence of Dr. E. J. Purtell, Milwaukee, was recently damaged by fire. Loss $500.

The Madison General Hospital and C. B. Livingston, former manager of the Hospital, are defendants in an action brought by M. Mikelson, who alleges that in 1914, he was a patient at the hospital, was left without proper care while in a delirious condition, and while in this condition jumped from a window, and sustained injuries, for which he holds the defendants responsible in the sum of $10,000.

Dr. Charles W. Graham, Milwaukee, is being sued for damages in the sum of $1,500 by Mrs. Hattie Malkowski, who alleges that she was severely burned by negligent hospital attendants, while under an anaesthetic.

Dr. Thos. O'Brien, St. Nazianz, won his suit in Winnebago County. The case was taken from Manitowoc County, and was tried before a jury. The plaintiff, a minor, alleged that an injured hand had been unskillfully treated so as to permanently cripple the limb and he filed a complaint for malpractice.

Dr. H. H. Morton, Cobb, is convalescing from a recent operation for appendicitis.

Dr. I. N. McComb, Brillion, recently observed the 40th anniversary of his services as a practicing physician in the community of Brillion.

Dr. Clemens T. Eger celebrated the 89th anniversary of his birth on April 19th, at his home in Watertown. Dr. Eger was born in Germany and studied medicine at the University of Dresden.

Dr. Thomas P. Russell, Oshkosh, who is believed to have been in practice longer than any other physician in Wisconsin, celebrated his 90th birthday on April 20th. He started practice in 1854 and served as a surgeon in the Civil War.

First Lieutenant A. A. Mitten, Milwaukee, has launched a campaign to raise $40,000 to be used in equipping the Wisconsin Ambulance Corps with motor ambulances, auxiliary trucks and motorcycles.

John Till, famous as a plaster healing specialist, with headquarters at Turtle Lake, who was recently arrested by the Barron County authorities, charged with practicing medicine without a license, has been acquitted of the charge. His defense was that his service to the sick was as a nurse and not as a doctor, and that the State Medical Society was trying to force him out of business.

An auxiliary medical corps will be organized among the physicians of La Crosse, to be known as the La Crosse Medical Reserve Corps.

Under the authority of the Adjutant General, Major G. E. Seaman, chief surgeon, has established

a school of instruction in military medicine, surgery and hygiene for medical officers and noncommissioned officers of sanitary troops. The sessions of the school are held Tuesdays and Fridays at 4 o'clock at the quarters of the Field Hospital in the Goldsmith Building, Milwaukee.

The new St. Joseph's Hospital at Portage was opened to the public on May 20, 1917.

Milwaukee Maternity Hospital reports for March show attendance in 53 obstetrical, 20 surgical and 86 clinical cases; 2,548 visits by physicians in addition to services to 1,735 infants. Most of the work is charitable.

The Milwaukee Children's Hospital has collected $110,000 of the $150,000 necessary to secure the $150,000 gift from Mr. and Mrs. Ferdinand Schlesinger. The Schlesinger gift will go to the building fund and an equal amount is desired for an endowment fund. Because of the unsettled conditions due to the war, the board has decided to postpone the building plans.

The city of Ripon has received a gift of grounds and a large residence from Mrs. Horner Lucas of Milwaukee, to be used for hospital purposes, provided the city will maintain the same.

The town of Ladysmith has launched a campaign for funds to be used for the establishment of a hospital in that city.

A demand for a county isolation hospital, for the benefit of the small cities surrounding Milwaukee, as well as for Milwaukee's protection, was made on Milwaukee County by Mayor Love of West Allis, and by representatives of other localities.

Milwaukee with a population of more than 450,000 has only 1,325 hospital beds available, contained in fifteen hospitals. Omaha with a population less than one-half that of Milwaukee, has 1,416 hospital beds. Minneapolis has 2,406 beds and a population of 363,454. This data has been compiled for the State Board of Health, which will supply it to the national government for war purposes. The Milwaukee Hospitals and the number of beds in each are: Milwaukee County 300; St. Mary's 190; St. Joseph's 137; Passavant 120; Trinity 105; Mt. Sinai 90; Children's 60; Radium 52; Misericordia 50; Deaconess 46; Maternity 45; Emergency 40; Columbia 40; Hanover 35; and Good Samaritan 15.

Marathon County Tuberculosis Sanatorium was opened to the public on May 1st, 1917.

The recent report of the visiting committee of the State Legislature recommending that the appropriation of $100,000 asked for by the State Board of Control for the erection of an infirmary at the State Tuberculosis Sanatorium at Wales be made, is believed practically to insure the additional facilities for the treatment of tuberculosis, which are so urgently needed.

Plans are being made by Neenah and Menasha to co-operate in the establishment of a summer tuberculosis camp on the interurban line between the two cities.

Wisconsin has taken another step forward in its campaign against tuberculosis, its 1916 Red Cross Christmas seal sale establishing a new state record with a total of between $49,000 and $50,000 worth of seals sold. The per capita sale was a little over two cents, thus doubling the standard set by the national sale of at least one seal for every inhabitant.

The Milwaukee Health Department's medical inspection of parochial schools is reported as highly successful. A total of 4,694 examinations of children have been made in the schools and 766 homes have been visited. Eight hundred and sixty-six children were advised to consult their family physicians for further treatment.

The Northern Paper Mills, Green Bay, have established an industrial service department under the direction of Dr. Ralph M. Carter, Green Bay and a registered nurse. Complete medical and surgical care for employes and their families will be furnished.

The Allouez Mineral Spring Company of Green Bay has been fined $250 in Federal Court on its plea of guilty to a charge of having misbranded water in claiming for it certain curative properties.

In the quarterly bulletin of the State Board of Health, municipalities and committees planning the after care of infantile paralysis patients are advised that their first step should be to select competent orthopedists to supervise treatment.

The New York Department of Health has formally offered to supply the Federal Government with biological products at practically cost price. The following products are offered: serum for the treatment of cerebrospinal meningitis and pneumonia; diphtheria antitoxin, tetanus antitoxin; bacterial vaccines, especially typhoid and paratyphoid, thromboplastin for preventing hemorrhage. These products may be obtained promptly and in large amounts at the call of the various branches of the Federal Government.

The Collector of Internal Revenue at Milwaukee makes the following request: "In view of the war conditions the Government will appreciate the prompt payment of income taxes, notices of which have been mailed to individuals and firms interested. If the taxpayer is able to make payment without undue inconvenience it is earnestly requested that payment be made at once. The Commissioner of Internal Revenue has no power under any law to make any rebate or discount on such anticipated payments, but hopes that in view of the conditions now facing the country a ready and large response may be made to this request."

The Woman's Medical Association of New York City is planning a banquet to be held at the Hotel McAlpin, Wednesday evening, June 6th, 1917, for the women physicians who will be in New York City to attend the meetings of the American Medical Association. Tickets are $3.00 and may be obtained from Dr. Mathilda K. Wallin, 616 Madison Ave., New York City.

The thirteenth annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held at Cincinnati, Ohio, May 9-11, 1917. Dr. Paul G. Woolley, Cincinnati, is chairman of the Pathological section and Frank H. Mann, New York City, is chairman of the Sociological section. All meetings will be held in the Sinton Hotel, except the mass meeting on Thursday night.

The twelfth spring meeting of the American Sanatorium Association will be held in conjunction with the meeting of the National Association for the Study and Prevention of Tuberculosis at the Hotel Gibson, Cincinnati, May 9th.

The annual meeting of Alienists and Neurologists will be held Monday, July 9th to Thursday, July 12th, 1917, in the Red Room, La Salle Hotel, Chicago, under the auspices of the Chicago Medical Society. Dr. Geo. A. Zeller will act as chairman. The program will be mailed June 28th, with abstract of each paper. Contributors to the program are solicited. This is a society without a membership fee. Address the secretary, Bayard Holmes, A. & N., Room 1218-30 North Michigan Avenue, Chicago, Ill.

The Oneida-Forest-Vilas County Medical Society has issued its second bulletin of medical society news. It contains an article on the visiting nurse, editorials on county sanatoria and baby week.

Dr. L. M. Warfield has recently been elected an associate member of the Association of American Physicians.

MARQUETTE NEWS NOTES.

In answer to the nation's war cry the Marquette Medical School is doing all in her power to supply the demands made. The following members of the faculty have expressed a willingness to enlist or have already done so: Drs. A. A. Mitten, D. V. Bruins, G. I. Hogue, C. H. Stoddard, George W. Neilson and R. W. Blumenthal as commissioned officers in the National Guard. While Drs. L. M. Warfield, L. F. Jermain, C. E. Echols, F. H. Thompson, J. S. Gordon, C. E. Evans, A. J. Patek and F. J. Gaenslen have joined as members of the Base Hospital.

Drs. E. D. Angle, L. P. Stamm and L. Adamkiewicz, graduates of Marquette, who have served their periods of internship, have enlisted in the Medical Reserve Corps of the Navy and are now in active service.

Three students, G. A. Sullivan, E. R. Ryan and L. E. Dockery have taken and passed the examinations for entrance into the naval reserve. These students will go to Washington and enroll in the Naval Medical School. They will receive three months' training there, at the end of which time they will receive their diplomas from Marquette.

At the end of this training they may obtain a commission in the regular navy with the rank of second lieutenant.

The Dispensary is also doing its share. It is offering its services to any recruit needing special attention, who cannot afford to pay a private doctor. Thus far it has treated five recruits.

One thousand six hundred and nineteen visits were made to the Marquette Dispensary Clinic during the month of March. The X-ray laboratory and Wassermann tests numbered 229.

The final exchange lectures with the University of Wisconsin was given Thursday afternoon, April 12, by Dr. W. F. Lorenz. His subject was "The Control of Venereal Diseases."

In return Dr. Van De Erve, assistant dean of Marquette Medical School, gave a lecture at Madison on "Preventive Medicine and Preparedness." This completes the series of lectures between the two schools for this year.

Members of the Class in Public Health and Nursing under the direction of Miss Katherine Olmsted, of the Anti-Tubercular Association, visited the Marquette Dispensary April 9.

Clarence L. Turner, of the Medical School faculty, has written a seven page article, entitled "A Culture Medium for Euglena," which appears in the April Anatomical Record. The article describes a new medium for keeping cultures indefinitely.

MARRIAGES

Dr. John H. Gatterdam and Helen Kroner, both of La Crosse, on April 27th.

Dr. Walter Wenzel Kieweg, Kewaunee, and Miss Helen Alberta Hagemeister, on April 25th.

Dr. Martin Fred DeFrenne, Sun Prairie and Miss Mary Pasich, Buhl, Minn., at Middleton, Wis., on April 17th, 1917.

DEATHS

Dr. John C. Ducker, Alma Center, Wisconsin, died at his home on April 7th, 1917, aged 55 years. He was a graduate of the Lincoln Memorial University, Knoxville, Tenn., in 1894.

Dr. Emil von Behring, the famous therapeutist and discoverer of diphtheria serum, died at Murburg recently after a long illness. Dr. von Behring was born in 1854 at Hansdorf, West Prussia. He commenced his professional life as an army surgeon. He was appointed professor of hygiene at the University of Halle in 1894 and moved to Strassburg University in the following year, where he became director of the Hygiene Institute.

Dr. Joseph Faerber, Merrill, died on March 30, 1917, aged 78 years. Dr. Faerber was born in Vienna, Austria, and received his education at the University of Vienna. Following his graduation he served two years as surgeon in the Holland navy. In 1865 he came to America locating at Indianapolis, where he practiced for some time. In 1867 he came to Wisconsin and located at Leeds, where he resided until 1882, when he removed to Merrill.

Dr. Alexander Montgomery, Eau Claire, died on April 11, 1917, aged 54 years. He was a native of Glengary, Ontario, Canada, and was a graduate of the Illinois College of Medicine, Class of 1898. Dr. Montgomery established the Montgomery Sanitarium, which was later changed to the Montgomery Hospital. He was a member of Eau Claire County and the State Medical Societies.

Dr. D. F. Bothwell, Pardeeville, died on April 13, 1917, aged 51 years. Dana Ferdinand Bothwell was born at Mauston, Juneau County, Wisconsin, on November 4, 1866. He graduated from the Ensworth Medical College at St. Joseph, Missouri, in 1892, and located at Morrell, Kansas, where he practiced for a time and then removed to Erwin, South Dakota, and from there to Kingston, Green Lake County, Wisconsin, where he practiced for many years, later moving to Pardeeville.

Dr. Galen Rood, pioneer physician of northern Wisconsin, died at his home in Stevens Point, on April 4th, 1917, aged 87 years.

Galen Geer Rood was born at Jericho, Chittenden County, Vermont, January 14th, 1830. At the age of 8 he came west with his parents, travel-

ing by the Erie canal and carriage to Chicago. From Chicago the family moved to Madison, and from there to Wausau where Dr. Rood's father built the Rood Mills. Dr. Rood's education was obtained in the district school and the University of Wisconsin, where he prepared to enter the Ohio Medical College at Cincinnati. From this institution he graduated in 1856. His course of study was supplemented with practice in the Marine Hospital of Cincinnati. He was there during the epidemic of cholera in 1855. In 1857 Dr. Rood was married to Nancy Kane Sylvester. Dr. Rood held the office of city physician for twenty-nine consecutive years, with the exception of two years. He practiced his profession for more than 60 years and was a member of Portage County and the State Medical Societies.

REMOVALS

Dr. J. T. Klein, Milwaukee to Columbus.

Dr. G. H. Schlesselman, Milwaukee to Fond du Lac.

Dr. J. H. McLaughlin, Glen Haven to Dubuque, Iowa.

Dr. Emil Roy, Wausau to Tulsa, Oklahoma.

Dr. E. L. Schreiber, Husher to Caledonia.

Dr. F. W. Gobar, recently of Mt. Sinai Hospital, Milwaukee, has located at Muscoda for the practice of his profession.

Dr. C. A. S. Gunderson, recently of Deerfield, has moved to Madison, where he will continue his practice. He will be located in the Gay Building.

Dr. F. C. Dean, recently connected with the Madison Sanitarium, has taken up practice of medicine in Hastings, Nebraska.

Dr. Max Schung, formerly located at Bonduel is now practicing at Nelson, Wisconsin.

Dr. Merritt Jones has located at Wausau for the practice of his profession.

Dr. Ernest L. Hennig, until recently at the Michel Reese Hospital, Chicago, has located at Beloit.

Dr. H. A. Mount, for many years located at West Allis, has left that town for Santa Cruz, Cal., his former home.

Dr. R. C. MacCollum, who formerly practiced at Forest Junction, has located at Manitowoc.

Dr. J. T. Bowers has disposed of his practice at Wausau and moved to Lake City, Minn., where he will practice in partnership with Dr. Cochrane.

Dr. C. E. Taylor, for a number of years located at Beaver Dam, has decided to discontinue practice there, and will be succeeded by his brother, Dr. I. E. Taylor.

DEPARTMENT OF NURSING

Conducted by Miss C. V. Nifer, Milwaukee County Hospital, Wauwatosa, Wis. Please address items of news and articles for this department to the editor of the department, Milwaukee County Hospital, Wauwatosa, Wis.

SOME OF THE HIGH-LIGHTS OF THE NATIONAL CONVENTION.

The conventions of the American Nurses' Association, the National League of Nursing Education and the National Organization of Public Health Nursing, held in Philadelphia April 26 to May 2 inclusive, were probably the most largely attended of any of the previous national meetings for nurses. More than one thousand nurses were registered at the Bellevue Stratford Hotel alone, where the sessions, with two exceptions, were held; many of necessity stopped elsewhere. The Red Cross meeting filled the Academy of Music on Monday evening as well as the one devoted to the subject of Health Insurance held in the same place on Friday evening.

The programs were intensely interesting, men and women of affairs coming from great distances to give talks or read papers. The address by Thomas Mott Osborne on Health Conditions in Prisons, was entertaining and illuminating. He said the overcrowded conditions and the herding together of the well and the ill would make Disease Conditions in Prisons a more suitable subject for his talk. Dr. Goler of the Rochester N. Y. Health Department gave a paper on Contagious Diseases in which he made a strong plea for clean-

liness as one of the most important preventive measures; he said that a man who in this day contracts Typhoid deserves neither compensation nor sympathy but jailing.

The modern method of teaching history by the use of pictures, was given by Jessie C. Evans of the Wm. Penn High School for Girls in Philadelphia. Miss Isabel Stewart of Teachers College, Columbia University, demonstrated the teaching of History of Nursing with Projectoscope illustrations.

Mr. Miles M. Dawson and Dr. I. M. Rubinow, in their addresses on Friday evening assured the audience that Health Insurance would undoubtedly come soon and advised the nurses to make ready to do their part in this work. These talks were interesting and highly instructive but the highlight for that evening was Miss Pauline Newman whose fearless utterances sounded common sense and her wholesome personality captivated the audience. She favors Health Insurance but, as she expressed it, does not think it will bring about the millenium. Her hope that she would again be asked to talk to the nurses and not be limited to fifteen minutes was echoed by each one there.

Perhaps the greatest interest and enthusiasm centered about the Red Cross meetings and the fact that the Cleveland Base Hospital, six in New York and one in Chicago were ordered to mobilize during the time that a great many of the nurses were attending the convention, added to the enthusiasm of these meetings. At the Monday meeting, which was devoted to Red Cross work and was a joint meeting of the three organizations, Miss Delano presided and Miss Noyes gave a comprehensive review of the work accomplished by that organization.

A practical demonstration by students of the Philadelphia General, Jewish and Frankfort Hospitals, brought out a large audience on Tuesday evening. The work was skillfully done and brought out many interesting points. Miss Amy Trench, resident Instructor of Mt. Sinai Hospital, New York, gave a demonstration on the teaching of solutions. Her class was made up of students of the Philadelphia General. This closed the evening session.

The program gave a place to each branch of nursing work and there was much to interest everyone, more in fact that one could attend. During the joint sessions of the three Associations, there were no other meetings held but at other times there were many round tables being conducted at the same time.

The advantages of our national gatherings are inestimable. Not only for the addresses, papers and discussions one hears but for the inspiration and encouragement one receives through personal contact with hundreds of women dealing with the same problems and difficulties, the same ideals and purposes, all working toward a common cause.

ORIGINAL ARTICLES

COMMUNITY NURSING.

BY MARIE PETERSON, R. N.,

PUBLIC HEALTH NURSE,

LA CROSSE.

In reviewing the activities along health lines and especially community nursing one finds that much progress has been made in the past twenty years. The original ideas of public health or visiting nursing as it was then called, was to send out an angel of mercy to alleviate suffering, give a bath or comb the hair, perhaps send in food and clothing or even see that the rent was paid. There was very little, if any, thought of preventive work. It was all restorative. All this is very necessary and must be done, but there is so much more than a well qualified trained nurse can do.

The nurse who cares at all and is really interested in her work must see other conditions. She must look for and be able to detect disease breeding conditions. Not only that, she must know the officers of the town or city who will be able to remedy such conditions.

If the Health Officer is slow to act the quickest way to exterminate these conditions is through public opinion. One good way is through the women's clubs. They are usually ready and willing to co-operate with the nurse if given the opportunity. Our work in La Crosse was started in January, 1911, with one visiting nurse. The work was carried on under the Board of Directors of

the Associated Charities. Right here I want to say that I firmly believe that it is a great mistake to start any public health work under the name of a charity organization. While a large part of the visiting nursing is done among the poor, public health work is no more a charity than the public schools. The work is done for the good of the whole community. Many self-respecting people cannot afford to engage a private nurse, neither can they afford to go to a hospital. Some of them can afford to pay a small fee for the services of a nurse who can give them a little time each day and surely they do not want to be classed with those entirely dependent upon charity.

I have had patients suffering from lack of nursing care who simply would not admit a nurse because she was sent by the Associated Charities. One woman whom we finally persuaded to have a nurse, said to me, "Now please don't put my name in the office, will you, and are you sure that our names won't be put in the paper? You see, my children are going to school and the other children might say something to them about it."

We can reach a larger number of people and be of greater value to the community if our work is carried on through some other organization rather than one of charity. It is necessary and we must have these organizations and we, as nurses, should co-operate with them.

About the same time a visiting nurse was employed the city decided to employ a full time health officer. He, with the Board of Health, immediately began thinking of ways and means with which to engage the services of a school nurse. About a year later through the sale of the Red Cross Christmas Seals a nurse was employed to give her whole time to the school nursing.

Later it was decided best to place all of the work under the supervision of the Health Department. In June of 1913 the Metropolitan Nursing Service was placed in this department. By having the various nursing activities correlated, we are not constantly having the work overlapping. With the aid of one paid assistant, three pupil nurses and by dividing the city into districts, all of the work be it school, infant welfare, tuberculosis or general visiting nursing, can be taken care of by each nurse in her respective district.

There has been some discussion as to the advisability of sending pupil nurses out into the districts to do the nursing. Under proper supervision I can see no reason why a nurse cannot be sent out for this work as a part of her training. Some nurses may feel that a month or two is sufficient training in this branch of nursing, and may feel that they are qualified to take a position as public health nurse. With so many special courses open to nurses in social and public health work, more of them will seek further training and education along this line of work, and will be better able to fill the positions that are being opened right along. Many of us, I am very sure, would have been glad for the opportunity of having a little training in the district nursing. Sending the pupil nurse into the district is both educational and philanthropic. It should be more generally followed, but must, of course, be under supervision.

Small communities can seldom employ more than one or two nurses so that in order to be of the greatest service, she must do all kinds of nursing. The infant welfare work, the school nursing, the tuberculosis and general nursing, all fall to her lot.

In the infant welfare work the instruction and care should begin before the baby is born. The nurse must teach the mother how to live, what food and exercise is best for her so as to conserve her strength for her family and the little one that is to come. She must be taught that if she wants to give the newcomer a fair chance she must begin at the very beginning of its little life.

During the period of confinement the nurse cares for the mother and baby and leaves instructions to be carried out until she can again see them, either the same day or the following morning as the case may require. She keeps in touch with the mother the following year or two and by little suggestions helps to keep the baby well. If he is sick, she sees that he is placed under a physician's care. When there are feedings to prepare the nurse gives the mother the necessary instructions in the modification of the milk. She teaches her the necessity of regular feeding, cleanliness, fresh air and sunshine, the dangers of patent medicines and innumerable other things.

An infant welfare camp is valuable in the saving of babies. Here the babies are given the care, food and fresh air they need. By having space for such a camp in a public park, many of the mothers are reached. They will bring their babies to be weighed and they will ask questions as to the care of their babies. They bring the whole family out

to picnic for the day, perhaps Johnny falls out of a swing, mother rushes him over to the baby camp, carrying in her arms little Mary who is ten months old. Johnny's bruises are dressed when the nurse's attention is called to Mary, who perfectly contented, is munching away at a weiner. The nurse kindly and tactfully tells the mother how bad this is for Mary and gives her the little pamphlet on the care and feeding of children.

Many of the mothers come to the camp because they are curious, they want to see the babies and they want to see what is being done in such a place. No matter what their motive is in coming, they will derive some benefit from the visit, if it is nothing more than seeing that little Rosalie and all the other babies have nothing but a shirt and diaper on when the weather is about 90 degrees in the shade.

In smaller cities where we do not have the conjested districts, and do not have the large number of babies for a camp a great deal of good can be done by taking the older children also and calling it a children's camp. Take the anemic child, the half starved youngster who doesn't have half a chance to live, let alone being good, give him two months at such a camp and see what happens. Take the children from the homes where there is little if any sunshine or ventilation, where the mother is washing for a living for herself and children and hasn't any strength or courage left when it comes to cleaning her own house. We sometimes criticize these mothers harshly for not taking better care of the home and their children, but I often wonder if we would or could do any better if placed in a similar position. The summer at this camp will not only be of great benefit to the children of this mother, but some of the burden is lifted from her shoulders for a little while and she will know that they are not hungry at any rate. These children could be found through the teachers of the school, if there is not a school nurse in the field, the parents visited and arrangements made for their care during the vacation.

The question of transportation of the children to and from the camp is quite a serious one. Of course, the older children living near enough can easily walk back and forth, but those living farther away and the little ones will have to be taken in some sort of conveyance. The best way is to get some philanthropic person who is willing to take charge of this part of the work. With so many young women driving their own cars there is usually very little trouble, if any, in getting plenty of cars for the transportation. One is more than repaid for her trouble when she sees how the children are gaining and how they enjoy the ride morning and evening.

A very important branch of the community nursing is the school nursing. School nurses are just as valuable to the community as are the school teachers and more cities should be employing them. So many children suffer from physical defects of which the parents are quite unaware, some of them having progressed so far as to cause serious symptoms of disease. The medical inspection is of much greater value if there is a nurse in the field to follow up the work. It has been proven that only about 2 per cent of the cases receive attention where a notice is sent, while about 85 per cent receive attention where the nurses are sent to follow up the cases. Sometimes the parents will have to be seen time and again before they will consent to have the child treated. One case I never will forget and some of you probably have had much the same experience. This girl was about ten years of age. Her eyes were in bad condition and she simply could not carry her work in school. The parents had been visited time and again, promised attention, but never giving it. The child was excluded from school, but that did no good as the mother was glad to have the child at home to help her. Finally I began making daily calls on the father at his place of work, at first urging him to have something done and later when I saw this had no effect, almost threatening him. The tenth day Nellie was in school and had glasses and I felt her work had not been in vain until I questioned her. When asked who had fitted her, Nellie made no response. Further questioning revealed the fact that she had not been fitted, her father had just brought them home to her and had bought them at the ten cent store. Well, poor Nellie was sent home again, her father was told to take her to a specialist for an examination or appear in court. Needless to say, he chose the former.

It is the nurse who finds the sick child, advises that a physician be called, gives the nursing care or makes arrangements for hospital care if the physician so advises. Often times a child is kept home to help care for a sick member of the family. The nurse finds this, makes provision for care for the sick one and the child is sent back to school.

It is well worth looking up absentees, as it is the greatest factor in helping to keep down the number of contagious diseases. The old idea of closing a school when there is an epidemic of any sort is gradually losing hold. Health officers are finding that the only way to stamp out an epidemic is to keep the schools open, place a nurse in the school and have her follow up all the absentees. Many a case of diphtheria or scarlet fever may be so mild that a physician is not called, the child may be out at play in the course of two or three days and perfectly capable of transferring the disease to his playmates who are at home because school is closed.

School in session, she may find the child suffering from a mild sore throat which the mother says Johnnie has every fall, also a rash which the mother and some physicians have been known to call a "Stomach rash" or just a "scarlet rash." Perhaps they will even go as far as to say it is a "touch of scarlet fever."

The nurse's duty, of course, is to report her findings to the Health Officer and quarantine usually follows. A few days later we usually get another case of "stomach rash" in the same family and perhaps one or two in the neighborhood and perhaps very much sicker children. Often the mild cases develop complications which prove to be much more serious, if not fatal. Had the nurse neglected her duty, had she not gone to the home or had she neglected reporting the case the first child would undoubtedly have returned to school while he was still capable of transferring the disease.

In visiting the schools it is a good plan, wherever possible, to visit each room. It takes a little more time, but it gives the nurse an opportunity to observe the light, ventilation and temperature of the room, also the child's position at her desk. Perhaps she will notice some who look anemic, or underfed. Little Mary, because she looks pale and pinched may be taken out of the room and in a tactful way, questioned as to what she eats. Nearly always the nurse finds that tea and coffee form a principle portion of the meal. Perhaps Mary tells the nurse that mother is not well and can't cook for them. The nurse visits the home and finds the mother thin and worn-looking and suffering from a bad cold which she has had for a long time. She also has a "slight cough" but she thinks it is only a little catarrh or a "stomach cough." Our stomachs seem to be targets for any ailment. She is finally persuaded, however, to save a specimen of sputum which is examined and tubercular baccilli are found. Perhaps two or three specimens will have to be examined before a diagnosis can be made. The patient must then be persuaded to give up all the patent medicines she has been taking, that cure everything from a bunion to a cancer, and must be urged to place herself under the care of a physician. The best physician will advise sanatorium treatment and if the patient can be induced to take this treatment, arrangement can be made for such care. The sad part is that there are far too few sanitoriums and an incipient case becomes advanced before he or she can be admitted.

The tuberculosis work is an important part of the nurse's work and is perhaps the most neglected. We should be able to help a great deal in getting patients to a physician for an early diagnosis because we get into so many of the homes through the school work. When we find a member of the family who says he is losing in weight and is easily tired out, we must persuade him to have a thorough physical examination. Of course we still have a few physicians who will not make a diagnosis of tuberculosis until the patient has passed away, and the death certificate has to be signed. Dr. Demming, of Cass City, Michigan, says, "Regarding the question of why we do not diagnose early tuberculosis—— When I was a boy, we were taught to tell the truth. As doctors we were taught not to tell the patient that he was going to die. When we get rid of that crop of liars, we will have a better standing. I hope the young brood will tell the truth," he says, "then you can warn the patient of his danger, get him to sleep in the cowshed and fix him up all right."

I wish more of the doctors would have this idea, for unless a patient is told of the danger he is in he cannot be expected to do much to help himself or protect others. If a patient remains at home the nurse must see that the neighbors are protected as well as the other members of the family. The disinfecting of the sputum in the vessel the patient uses in the house is of little value if he is allowed to expectorate any place and every place out of doors. He is not only endangering the health of the children and other members of his family, but he is also a menace to the general public. In all cases where the patient cannot afford to buy the sputum cups, such as used in the sanitoriums, they should be furnished free of charge. They can be used any place, out of doors as well as

in the house, and are easily destroyed by means of a fire in the stove or a little bonfire in the yard. They can be bought from our State Institution in large quantities at very little cost, and any community can well afford to pay for this protection. There are many ways of disposing of the sputum, but I know of none as desirable as the paper cups.

General nursing or visiting nursing is not as apt to be neglected as is some of the other public health work. We are only human and most of us like to feel the appreciation that comes with the giving of a bath or the straightening of a bed or any of the many ways that help to relieve suffering. In the visiting nursing a patient should be encouraged to pay for the services, no matter how small the amount is. He should be told that this money helps to give care and supplies to others who are less fortunate than he is. We must not serve as mere machines and feel that our work is done with the giving of a bath or carrying out of the doctor's instructions. We must interest ourselves in the general welfare of the family. We must be sincere and serve as a friend as well as a teacher. New lines of work for Public Health Nurses are continually springing up and we must prepare ourselves to meet them, we must not be satisfied with what we have done, for our work is never done.

Dr. Scidmore, formerly on the Michigan State Board of Health, says: "The nurse in the administration of Public Health is the great key that will unlock health in the world filled with disease."

NEWS ITEMS AND PERSONALS.

Miss Stella Fuller began her duties as Assistant Supervising Nurse to the Anti-tuberculosis Association in Milwaukee on April 20th.

Miss Ida Stanley, R. N., graduate of Cheyenne Hospital, Cheyenne, Wyoming, and recently located in Milwaukee, has accepted the Superintendency of the Burlington Hospital, Burlington, Wisconsin.

Miss Astrid Hofseth, R. N., has resigned her position as Superintendent of Nurses, Provident Hospital, Chicago, to accept the Superintendency of Maplecrest Sanatorium, Whitelaw, Wisconsin.

Miss Florence Anderson, R. N., graduate of the Augustana Hospital, Chicago, has accepted the position of head-nurse of the Maternity floor of the Kenosha Hospital.

Miss Myrtle Schnelling, class of 1916, Kenosha Hospital, who has been serving in the capacity of night supervisor has resigned her position and is to be succeeded by Miss McGivern. Miss Schnelling's engagement to Mr. John Riddis of Racine, has recently been announced by her aunt, Mrs. Schnelling of Kenosha.

Women representing the Kenosha Red Cross chapter have formed an organization for the purpose of making Red Cross supplies. Mrs. E. Thiers, president of the organization, is a graduate nurse from the City and County Hospital, San Francisco, Cal., although married and not in active nursing she is greatly interested in all that pertains to nursing work and is becoming an enrolled Red Cross nurse that she may be of greater service.

The graduating exercises of the class of 1917 of Kenosha Hospital will be held May 28, at the Congregational Church. The graduating address will be given by Miss Katherine Olmsted of Milwaukee. An alumni banquet will be held the night of the commencement, and the following evening the Board of Directors will give a reception and dance for members of the graduating class.

On Easter Sunday at the First Presbyterian Church in Neenah was presented as a part of the Vesper Program, a little play entitled "Triumph of Love," arranged by Frederick Taylor, D. D. S. Dr. Taylor had recently been a patient at Theda Clark Memorial Hospital and while there learned the necessity of a free child's bed; with this for an inspiration, this program was arranged and presented to a very large audience. The members of the church and friends of the hospital were asked to make an offering for the endowment of a child's bed, which when given, amounted to $1,040.00.

The Twin Cities, Neenah and Menasha, observed Baby Week, May 6 to 12. A number of medical and dental clinics were conducted and addresses given by physicians at the various mothers' meetings as well as demonstrations by nurses on the care of the baby and the preparation of food.

On May 28th, the Milwaukee County Nurses' Association will give a Theater benefit the proceeds of which will go toward the maintenance of the County Nurses' Club House. The attraction will be the Boomerang which is said to be one of the best plays of the season and by far the best that has come to Milwaukee this year. It remained in New York one year and in Chicago eight months and Milwaukee is promised the production with the full original New York cast. It is hoped that doctors, nurses and all friends of nurses will give them their help by attending the Monday night performance and so show their appreciation of the work the Club and Directory are trying to do.

The Milwaukee County Nurses' Association held its regular monthly meeting at the Club House, May 8th.

Dr. Van de Erve gave a talk on "Preventive Medicine as a Measure Toward Preparedness."

Four Red Cross classes for lay women in Elementary Hygiene and Home Care of the Sick have been organized in Milwaukee under the direction of Miss Stella Mathews and Mrs. Kate Kohlsaat. Also one class in Home Dietetics, which is supplementary to the Hygiene course, is being instructed by Miss Johnson, head of the Domestic Science Department of the Milwaukee Normal School. Each class consists of twenty members and meets twice weekly; the Dietetis class, at the Normal School, the other four at the Nurses' Club House, 566 Van Buren Street, where a demonstration room has been equipped with hospital appliances for practice work. The equipment for this room was a gift from Mr. Neil Norris of Milwaukee and adds much to the efficiency of the work done by the classes and also greatly facilitates the teaching.

BOOK REVIEWS

A Text-book of Practical Therapeutics. With especial reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, B. Sc., M. D., Professor of Therapeutics, Materia Media and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania. Sixteenth edition, revised and enlarged. Imperial octavo, 1,009 pages, with 149 engravings and 17 plates. Cloth, $4.75 net. Lea & Febiger, Publishers, Philadelphia and New York. 1916.

For a book to enter upon its 16th edition evinces great popularity and necessarily must mean some worth. These have been true of Dr. Hare's Practical Therapeutics. The same general plan has been followed as in previous editions. The official preparations of the new U. S. Pharmacopoeia and the new British Pharmacopoeia have been incorporated.

The section on Drugs occupies nearly 500 pages. Does not that seem a sad commentary on our modernism? We still cling to a mass of junk which has been passed on to us by generations of dear, cultivated gentlemen who successfully treated old ladies for various imaginary ailments. It makes one wonder when the science of Clinical Pharmacology will arise and consign to the rubbish heap ninety per cent of the drugs in the U. S. Pharmacopoeia.

Dr. Hare is too dogmatic in his treatment. It is the natural attitude of anyone who has for years thought of drugs and disease. We turned to his section on treatment of Diabetes and confess than we were much disappointed. After a little said about diet and a few words about the Allen treatment, he launches forth into the use of a lot of drugs in diabetes, chiefly opium and its derivatives. The old, old story.

There is a distinct flavor of the good old days of polypharmacy in many of the prescriptions. Five ingredients do not seem to bother the author at all. For "biliousness" he has a pill containing drugs some of which the Reviewer must admit are new to him but may be of great value, e. g., Extracti chiratae, Podophyllini, Euonymini, Leptandrini, Creosoti, all in the same pill. No, we are not jealous because we cannot write such beautiful prescriptions, but we do take off our hat to the man who can. There seems to be some wizardry or necromancy about such a combination that surely should cure the "biliousness."

For those who want to know the kind of things Dr. Hare tells, there is no better book in the English language, and, by the way, it is in its third Chinese edition.

Text Book of Surgical Operations, Vol. II, by Prof. Fedor Krause, Privy Councillor, Directing Physician, Augusta Hospital, Berlin, and Emil Heymann, M. D., Chief Physician, Augusta Hospital. Translated into English and edited by Albert Ehrenfried, M. D., First Assistant Visiting Surgeon, Boston City Hospital; Junior Assistant Surgeon, Children's Hospital; Surgeon, Boston Consumptives' Hospital. 373 illustrations in two or more colors. Price, $7.00. Rebman Company, 141-145 West 36th St., New York.

This volume, the second of six volumes, takes up the surgical lesions and their surgical treatment of diseases of the head, including the face, the oral cavity and the pharynx. The book is divided into eight chapters (13 to 21 inclusive), collecting the material under logical and appropriate headings or titles. The respective operative procedures are well illustrated, bringing out clearly the applied surgical anatomy where possible. While other avenues of approach and even other surgical procedures are preferred by many surgeons in some lesions about the face and the mouth in some of the larger clinics in this country, the work shows forcibly the particular operations advocated by the authors. The chapters on brain surgery bring the subject matter up to date on the lesions of the brain and the skull, traumatic, inflammatory and neoplastic, with their surgical treatment, including certain surgical limitations. The book should prove instructive and useful to both physicians and to undergraduate students for whom it is intended.

F. B. M.

Physical Examination and Diagnostic Anatomy. By Charles B. Slade, M. D., Chief of Clinics, General Medicine and Instructor in Physical Diagnosis, University and Bellevue Hospital Medical College, New York. Second edition, thoroughly revised, 12mo of 150 pages, illustrated. W. B. Saunders Company, Philadelphia and London. 1916. Cloth $1.25 Net.

The second edition of Dr. Slade's little book has had some material added to it which increases its value as a text-book for second year students who are beginning the study of Physical Diagnosis.

The diagrams are very clear and help to illustrate the fundamental points in normal diagnosis. It is a good manual for teachers to recommend to their students.

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DR. T. H. HAY, Medical Director, Stevens Point, Wis.

THERAPEUTIC NOTES

ADRENALIN IN HAY FEVER.

Many able therapeutists aver that the best method of treating hay fever is by prophylaxis. The contention is not without substantial foundation, since it is in consonance with the modern trend of preventive medication. Unfortunately, the physician not uncommonly lacks opportunity for the application of prophylactic measures. In a majority of cases the disease has already manifested itself when his services are sought. The situation then calls for prompt, effective treatment. Application of the suprarenal substance in the form of Adrenalin Chloride Solution or Adrenalin Inhalent is undoubtedly a wise procedure at this juncture. One feels justified in saying this in view of the long, efficient service that has been rendered by these agents in the treatment of hay fever.

While not specifics in the strictest sense, the Adrenalin solutions control the hay-fever symptoms effectively and secure for the patient a marked degree of comfort. By reason of their astringent property, they constrict the capillaries, arrest the nasal discharge, minimize cough, headache and other reflex symptoms, and hasten the resumption of natural breathing.

For topical use in the treatment of hay fever Adrenalin, Chloride Solution should first be diluted with four to five times its volume of physiologic salt solution; Adrenalin Inhalent should be diluted with three to four times its volume of olive oil. The solutions are applied in spray form to the nares and pharynx. Any good atomizer adapted to the use of oily or aqueous substances is suited to the purpose.

A VALUABLE NEW CATALOGUE.

Parke, Davis & Co. announce the publication of their 1916 price list, which is said to be an improvement in many respects over any previous issue of this valuable catalogue. The book is divided into three parts: Part 1—Fluid Extracts, Pills, Elixirs, Syrups, Tablets, etc.; Part 2—Specialties, into which have been merged Special Preparations; Part 3—Biological Products. The nomenclature of the U. S. P., Ninth Revision, has been adopted in the new list, the term "milliliter" ("mil") being substituted for the cumbersome "cubic centimeter." The standards of the new U. S. P. applying to fluid, solid and powdered extracts and tinctures, together with the doses, have also been adopted. All Harrison-act items (products that must be ordered on official order forms) are clearly distinguished. Its amplitude, its handy classification, its comprehensive general index, all serve to make the new catalogue a reference book of the utmost value to medical practitioners. We understand that the book will be ready for distribution about August 1st. Physicians are advised to write for a copy, addressing their requests to Parke, Davis & Co., Detroit, Mich.

A BIT OF HUMOR

TURNING SUNSHINE LOOSE.

"It's a dark day," some one said to Brother Williams, "a very dark, hopeless day."

And then the old negro said: "Hit's ez you look at it. But why don't you unlock de sunshine? Ain't you got some hid 'round de house some'rs—in some ol' co'ner what you clean forgot? Stir 'roun'! Stir 'roun, an' tu'n de sunshine loose. It's dar—in yo' house and heart."

"Here," the dark day mourner said, "here's a dollar for you, old man."

"Bless God!" Brother Williams said. "I knowed you'd turn loose de sunshine. Hit wuz in yo' pocket all de time!"—*Atlanta Constitution.*

HAPPY THOUGHT.

Percy—Sometimes I think that if I should die no one would miss me!

Ethel—Pa might! You're all the exercise he gets but golf.—*Houston Chronicle.*

INTREPID.

"We are raffling kisses. Will you take a chance?"

"Sure. I ain't afraid of germs."—*Louisville Courier-Journal.*

JUDGING FROM EXPERIENCE.

"Pop, are bald eagles a distinct variety?"

"I can't say positively, my son, but I rather fancy a bald eagle is simply a married one."—*Exchange.*

BE EXPLICIT!

"Scotch mixtures seem to be very popular this season," remarked the dressy person.

"To wear, or to drink?" demanded the man with the impressionistic nose.—*Exchange.*

DOES A GOOD JOB.

"They say that lightning never strikes twice in the same place."

"Well, it doesn't need to!"—*Exchange.*

WHY, THOMAS!

"Why is it that the telephone operators are all women?" Mrs. Thomas asked her husband.

"Well," answered Mr. Thomas, "the managers of the telephone exchanges are aware that no class of people work so faithfully as those who are in love with their job; and they knew that women would love their work at the switchboard."

"What is the work of a telephone operator?" Mrs. Thomas further inquired.

"Talking," answered Mr. Thomas.—*Exchange.*

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THERAPEUTIC NOTES

The Sanitarium idea in this country is approaching its fiftieth anniversary. The **Battle Creek Sanitarium**, the first institution of its kind in the United States, will celebrate its Golden Jubilee next year.

The origin of the Sanitarium dates back to 1866 when it is related a little band of men who believed in altruism and human progress purchased a small two-story farmhouse in a fine grove in the edge of the village of Battle Creek and opened a "water-cure" under the name of "The Western Health Reform Institute."

Ten years later the enterprise, after having passed through various vicissitudes and having failed to achieve any considerable degree of success, was placed in the hands of the present management, with twelve patients and a half dozen small two-story wooden buildings.

The new management inaugurated new policies, and introduced new methods and principles. The empirical methods of the oldtime "water-cure" were replaced by rational hydrotherapy, and as rapidly as possible new methods, appliances, and apparatus were added, in the effort to create an institution which would show in practical operation all the resources of rational and physiologic medicine.

The management of the new institution sought, by the aid of the various means of precision afforded by scientific medicine, to perfect, and thus place upon a scientific basis, those natural curative agencies which, having chiefly originated with the laity, were formerly employed almost exclusively by empirics.

Even the word "sanitarium" owes its place in the language to Dr. J. H. Kellogg, president of the Battle Creek health resort.

When he took charge of the Sanitarium it was known by the cumbersome title, "The Western Health Reform Institute." The first act of the young superintendent was to discard the awkward name and rechristen the institution "The Battle Creek Sanitarium."

More than a hundred thousand patients have received treatment at the **Battle Creek Sanitarium** during the fifty years of its existence. In fact, Case No. 100,000 was assigned several weeks ago to Ex-President Wm. H. Taft on the occasion of his visit to Battle Creek. Mr. Taft was not sick but took an examination while in Battle Creek just for the "fun" of it.

The list of Sanitarium patients includes men and women from every state in the union and from almost every foreign country. Wu Ting Fang, the eminent Chinese diplomat was at one time a guest at the Sanitarium and he has recently written to the management that he expects to revisit the institution on his hundredth birthday. The diplomat believes that the system of diet which he has worked out for himself will extend his life beyond the century mark.

A general resume of the work of the Sanitarium for 1914 has just been issued in the form of an annual report. It will be sent free upon request to any physician.

Physicians generally may find something of interest in the annual report of the **Battle Creek Sanitarium** for 1914.

STERILIZED SOLUTIONS IN AMPOULES.

Hermetically sealed glass ampoules containing sterilized solutions of important drugs for hypodermatic use have assumed a commanding place in medicine within a comparatively short period. A few years ago, seeing the tendency in this direction, **Parke, Davis & Co.** brought out a modest line of something like a half-dozen formulas, notable among them, if we mistake not, being a solution of Adrenalin. From this small beginning the list has expanded until now more than fifty solutions are supplied in this form.

Solutions in glaseptic ampoules, it is obvious, have several advantages over those prepared in the ordinary manner. They are ready for immediate use; there is no necessity to wait until water can be sterilized and cooled. Accuracy of dose is insured, each ampoule containing a definite quantity of medicament. The solutions are aseptic. They are permanent.

Parke, Davis & Co. have just issued a new edition of their "Ampoules" brochure, a valuable little book of 70 pages, giving a complete list of their sterilized solutions, with therapeutic suggestions, dosage, descriptions of packages, prices, etc. The work contains also a useful therapeutic index and an informing chapter on hypodermatic medication in general. Physicians and surgeons are advised to send to the Detroit laboratories of **Parke, Davis & Co.** for a copy of the book, which is supplied gratis.

A BIT OF HUMOR

THE VOICE OF EXPERIENCE.

"Salvation is free!" exclaimed the evangelist.

"Huh! I guess you never stacked up against a church fair, did you?" demanded the victim in the back row. —*Exchange.*

LURID LIGHTING.

"Gay dogs the Romans must have been in the olden days."

"You're right! Think of going to bed by the light of the Roman candle!"—*Exchange.*

SUPER-DEVOTED.

She (romantically)—"Would you risk your life for my sake?"

He (ardently)—"I'd beard a lion in his den with a safety razor!"—*Exchange.*

PRUDENT MARY.

Mary had a little Ford,
Which she had named the Rocket;
And when she wasn't driving it—
She packed it in her pocket.—*Exchange.*

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THERAPEUTIC NOTES

In honor of the fiftieth anniversary of its founding, **The Battle Creek Sanitarium** will have a notable celebration on October 3, 4 and 5. The program is rich in varied features, among which are a great banquet, receptions, athletic contests, industrial pageant, outdoor spectacle, re-union of former patients, and a series of conferences on sociological, eugenic, sanitary and medical subjects in which prominent speakers from all parts of the country will take part. A considerable attendance of physicians is expected.

The beginnings of the Sanitarium were sufficiently humble. A two story frame house on a knoll in the outskirts of an obscure village, two physicians and one patient, comprised the tangible portion of what was called the Western Health Reform Institute. But the true riches of the establishment lay in the ideas on which it was based. These included not only the "water cure" but diet reform, dress reform and other "simple life" measures for the physical welfare of man. These fifty years have seen as big a change in the methods of the Sanitarium as they have in its equipment of lands and buildings, yet those pioneers held the grain of the truth. In one sense, the present great enterprise, with its imposing display of architecture, its marvelous apparatus for accurate diagnosis and the healing of the sick, its corps of skilled physicians, trained nurses and hundreds of other employes, its fame, which has spread to the four corners of the world—is merely the outgrowth of that modest "house by the side of the road."

After a decade of moderate success, the institution came under its present management. New policies, new methods and new principles were introduced. The old time "water cure," which was a rub-of-thumb affair, was replaced by rational hydrotherapy. The newest developments of medical science, both as to methods and mechanism, were gradually added in the effort to create an institution that should show in practical operation all the resources of physiologic medicine. At the same time, stress was laid on supplying all the comforts of a home and a hotel, in addition to facilities for the administration of baths of every description, electricity in its different forms, medical gymnastics and other rational agencies, with careful regulation of diet.

Steady growth led to successive enlargement of the accommodations. In 1902, a fire destroyed the main building and hospital. In planning the present magnificent structure, advantage was taken not only of the experience gained in the conduct of this institution but of similar enterprises and hospitals in this country and in Europe. The main structure is 550 feet long, fifty feet wide and six stories high. There are three extensions in the rear. To make the place entirely fireproof, wood was eliminated everywhere save in the doors and window cases. A ventilating system supplies 150,000 cubic feet of fresh air per minute. The cost of the building and its equipment has been nearly two million dollars. An annex purchased five years ago has rooms for from 250 to 300 persons, and in addition there are several large dormitories and numerous cottages for patients and employes. At present, there are about 1,000 guests, including those not receiving regular medical attention, while a force of about 1,700 persons is employed to care for them. This fact gives a striking proof of the elaborateness and complexity of the care bestowed on the sick in a modern Sanitarium.

Last year a new surgical hospital was opened, embodying the latest and most scientific ideas in construction and equipment.

Being purely a charitable institution, and having no dividends to pay, the Sanitarium is able to make liberal expenditures for the indigent sick. In one recent year these amounted to over $150,000, and the total sum for the half century has been over $1,400,000. The total number of patients to date is over 104,000; this excluding guests not under a physician's care. At the present time, the patronage is far in excess of that of any previous time.

A BIT OF HUMOR

PSYCHOLOGICAL INQUIRY.

"I say exactly what I think," exclaimed the vociferous man.

"How interesting!" exclaimed Miss Cayenne. "Do you think of what you say before you say it or do you admire the way it sounds and then think it?"—*Washington Star.*

NO END TO IT.

"Getting warm, Wombat."

"Very."

"Why don't you buy a straw hat?"

"I'm waiting to get the lowest price. And they never seem to strike bottom. Just keep coming down."—*Louisville Courier-Journal.*

TOO BAD.

Little Edna, who was watching the men working a piledriver in the lot opposite, said to her mother: "I'm so sorry for those poor men, mamma; they've been trying and trying to lift out that big weight and every time they get it almost to the top it falls right back again."—*Boston Transcript.*

THE MODERN WAY.

Anxious mother—I wish you would speak to my son about smoking, bishop. Tell him he won't go to heaven if he persists in it.

The bishop—My dear lady, that arrangement is out of date. I'll warn him that he won't get on the ball team.—*Judge.*

THE SCARCE KIND.

"Is help scarce around here?"

"Yes," replied Farmer Corntossel. "I can secure for a consideration any amount of advice and supervisory assistance. But plain ordinary help is gettin' scarcer every year."—*Washington Star.*

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THERAPEUTIC NOTES

POWERFUL ANTISEPTIC AND DISINFECTANT.

A solution of **Parke, Davis & Co.'s Germicidal Soap** containing 1:5000 mercuric iodide, the active ingredient, destroys pus-producing micro-organisms in less than five minutes. The soap has been tested with pus, cholera, typhoid and diphtheria germs, and anthrax spores, and in hundreds of experiments none of the germs survived two minutes. The tests referred to were made with solutions representing but one part of the antiseptic material in each five thousand parts. In proportion to the amount of antiseptic contained, this soap is held to be the most powerful germicide and disinfectant available. The assumption is based upon comparative tests with other well-known antiseptics.

It is apparent from the foregoing that **Germicidal Soap,** P. D. & Co., has a wide field of usefulness in medical and surgical practice. Obviously it is more than a soap, more than a germicide. Indeed, as one writer has said, it is an antiseptic, a disinfectant, a cleanser and a lubricant in one. It is serviceable for sterilizing hands, instruments and sites of operation; for lubricating sounds, speculа, etc.; for vaginal douching, as it tends to dissolve pus, blood and mucus, whereas most other germicides coagulate them; as a disinfectant wash after attending upon cases of communicable disease; in the treatment of skin infections of parasitic origin; for cleansing surface lesions associated with fetid discharge; for neutralizing the odors of offensive perspiration, for shampooing the scalp and hair; for the destruction of parasites; for sterilizing bed-linen and cleansing cuspidors, bedpans and other utensils of the sick-room. In short, wherever a powerful antiseptic, disinfectant, detergent or deodorant is needed, **Germicidal Soap,** P. D. & Co., would seem particularly applicable.

Germicidal Soap is supplied in two strengths, containing, respectively, one per cent. and two per cent. of mercuric iodide. If a cake of the latter be rubbed in water until a heavy lather is formed, the solution will be approximately 1:5000. The soap has an important advantage over most other powerful antiseptics in that it does not coagulate albumin or corrode nickeled or steel instruments.

A BIT OF HUMOR

PERSUASIVE.

Uncle Tobey was an hospitable soul. He wanted no guest in his house to be stinted. "Have some, have some," he invited cordially at the supper table, sending around the platter for the third time; "we're going to give it to the pigs anyway."—Judge.

OF LITTLE MOMENT.

The world is like a picture show
  Which features those with cash,
And on that basis, as things go,
  I only get a flash.

—*Louisville Courier-Journal.*

THE PEACH TREE.

It raises a joyful shout,
  A truly delightful screech
When your tree begins to sprout
  Its first little knobby peach.

—*Kansas City Journal.*

SOMETHING IN A BOTTLE.

For every ache and every pain,
For every ill of toe or brain,
So many folks have the belief
That they will surely find relief
  From something in a bottle.

Some folks want something they can smell,
Or something they can "rub in well,"
While some prefer to taste the stuff
And never seem to get enough
  Of something in a bottle.

No matter if they always fail
To find relief, you'll see them hail
With great delight some new affair,
Some fake to swallow, smell, or wear—
  Or something in a bottle.

If folks would quit these things, and pause
Just long enough to find the cause
Of all their ills, they soon would learn
How they'd been fooled, and then they'd turn
  From something in a bottle.

—*Life and Health.*

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F. C. STUDLEY, M. D., East Milwaukee, Wis.

THERAPEUTIC NOTES

ADRENALIN IN HAY FEVER.

Many able therapeutists aver that the best method of treating hay fever is by prophylaxis. The contention is not without substantial foundation, since it is in consonance with the modern trend of preventive medication. Unfortunately, the physician not uncommonly lacks opportunity for the application of prophylactic measures. In a majority of cases the disease has already manifested itself when his services are sought. The situation then calls for prompt, effective treatment. Application of the suprarenal substance in the form of Adrenalin Chloride Solution or Adrenalin Inhalent is undoubtedly a wise procedure at this juncture. One feels justified in saying this in view of the long, efficient service that has been rendered by these agents in the treatment of hay fever.

While not specifics in the strictest sense, the Adrenalin solutions control the hay-fever symptoms effectively and secure for the patient a marked degree of comfort. By reason of their astringent property, they constrict the capillaries, arrest the nasal discharge, minimize cough, headache and other reflex symptoms, and hasten the resumption of natural breathing.

For topical use in the treatment of hay fever Adrenalin, Chloride Solution should first be diluted with four to five times its volume of physiologic salt solution; Adrenalin Inhalent should be diluted with three to four times its volume of olive oil. The solutions are applied in spray form to the nares and pharynx. Any good atomizer adapted to the use of oily or aqueous substances is suited to the purpose.

LIQUID PETROLATUM—THE IMPORTANCE OF SPECIFICATION.

There are many liquid petrolatums on the American market. Some of them are unfit for medicinal use. For internal administration liquid petrolatum should be free from deleterious substances—such, for example, as resinous oils, asphaltic compounds and unsaturated hydrocarbons. The average commercial petrolatum is liable to contain these impurities. It may also contain sulphur derivatives originating in the crude oil or in the chemical agents used in the refining process. Administered for any considerable period, these sulphur derivatives will cause irritation.

Fortunately, physicians need take no chances with petrolatums of doubtful quality. The specification "American Oil, P. D. & Co." will insure a highly refined, chemically pure liquid petrolatum. This product is guaranteed to be free from active or harmful substances. It meets all tests for identity and purity. It is colorless, odorless and tasteless. It is an oil of higher viscosity than most similar preparations on the American market, a fact worthy of consideration since it is conceded by medical authorities that the heavy oil having greater lubricating power, is the most efficacious therapeutically.

Professional interest on the part of physicians has led the **Battle Creek Sanitarium** to prepare a special volume for members of the medical profession describing, in a technical way, The Battle Creek Sanitarium System.

This book, for free distribution among physicians, gives a complete history of the origin of the Sanitarium movement, a review of its progress during the half-century of its history and a detailed account of the methods of treatment, diet and exercise developed and used in the Sanitarium.

The Sanitarium enjoys the friendship and confidence of the profession to a marked degree, its records showing that two thousand physicians and five thousand members of physicians' families have availed themselves of the health opportunities offered at Battle Creek.

More than ten thousand patients have gone to The Sanitarium through the advice of their family physicians.

A VALUABLE NEW CATALOGUE.

Parke, Davis & Co. announce the publication of their 1916 price list, which is said to be an improvement in many respects over any previous issue of this valuable catalogue. The book is divided into three parts: Part 1—Fluid Extracts, Pills, Elixirs, Syrups, Tablets, etc.; Part 2—Specialties, into which have been merged Special Preparations; Part 3—Biological Products. The nomenclature of the U. S. P., Ninth Revision, has been adopted in the new list, the term "milliliter" ("mil") being substituted for the cumbersome "cubic centimeter." The standards of the new U. S. P. applying to fluid, solid and powdered extracts and tinctures, together with the doses, have also been adopted. All Harrison-act items (products that must be ordered on official order forms) are clearly distinguished. Its amplitude, its handy classification, its comprehensive general index, all serve to make the new catalogue a reference book of the utmost value to medical practitioners. We understand that the book will be ready for distribution about August 1st. Physicians are advised to write for a copy, addressing their requests to Parke, Davis & Co., Detroit, Mich.

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F. C. STUDLEY, M. D., East Milwaukee, Wis.

THERAPEUTIC NOTES

The requirements of a special diet for diabetics has led to the addition of several new foods to the menu of the **Battle Creek Sanitarium.** Bean sticks are largely used. They are made from the Soya bean and contain no carbohydrates, while showing a high content of protein and fat. The root of the lotus, a water plant, and a species of lily, also yield a food lacking carbohydrates, but the nutritive value is less than that of bean sticks. Bamboo shoots are also served, but they contain a small amount of carbohydrates.

HALF A CENTURY'S PROGRESS.

October, 1916, points an epoch in the history of **Parke, Davis & Co.** The house was founded in 1866—just fifty years ago this month—largely upon the optimism of three or four determined men, backed by a capital that would seem insignificant today. There was nothing in its unpretentious origin to forestall the success of after-years. And by success we mean not merely material prosperity, but also that broader and more enduring success that is based upon good-will and confidence.

Manufacturing pharmacy was then a crude, imperfect art. Bacteriology, pharmacology and biological pharmacy were as yet unborn. There were no curative sera or vaccines in those days. Prophylaxis was in its infancy. Standardization was unknown.

Fifty years have wrought marvelous changes in means and methods for the treatment of human ills. The materia medica has been amplified beyond the dreams of the earlier investigators. Knowledge of pathology has immensely broadened. The empiricism of the past has given way to rational therapeutics, and medicine is taking its rightful place among the sciences.

In all these forward movements, **Parke, Davis & Co.** have had some part—notably as discoverers of new vegetable drugs, as inventors of new chemical compounds, as pathfinders and producers in the field of biological manufacture, as investigators in original research, as pioneers in both chemical and physiological standardization.

The past half-century, as we have intimated, has been remarkable in its contributions to the newer materia medica. What will the next fifty years bring forward? Time alone can write the answer. Ours is a progressive age. The science of medicine has not reached its highest development. The physician's armamentarium will be further enlarged and fortified. New remedial agents will come into being. Many existing products will be improved. And with the fulfillment of these conditions, **Parke, Davis & Co.** (if we may judge the future by the past) are certain to be identified.

THE HYGEIA SANITARIUM.

The attention of the affiliated members of the State Medical Society of Wisconsin is called to the ethical conduct of **The Hygeia Hospital,** where the non-secret treatment for narcotism, as given to the medical profession through the Journal of the A. M. A., is used—with the highest per cent of fixed results.

This treatment, in addition to separating the user from his habit, dissociates the habit from the mind and body of the individual, thus obliterating the craving. The treatment is of short duration; the discomfort minimized.

On entrance, covering all ordinary expenses a fixed charge is made, which is moderate considering the service rendered in the individual case, and the permanency of the results.

Those interested should write for reprints and general range of prices.

DIPHTHERIA ANTITOXIN—WHOSE?

"What make of diphtheria antitoxin shall I employ?" is a query that comes sooner or later to practically every physician. It is a question that should not be answered "offhand." On the contrary, it merits the most thoughtful consideration. Obviously, all antidiphtheric sera are not of equal merit. The antitoxin selected should be a product of established purity and potency—an antitoxin backed by experience, scientific knowledge and adequate manufacturing equipment. A name that comes promptly to mind in this connection is that of **Parke, Davis & Co.,** among the earliest and for many years the largest producers of diphtheria antitoxin. That these manufacturers regard the business of serum production as one not only worthy of the highest skill and endeavor, but actually demanding it, is evident from this excerpt from one of their recent announcements:

"When, in 1894, we undertook the manufacture of diphtheria antitoxin, we had one dominant ambition: to produce an antitoxin that should leave nothing to be desired—an antitoxin that the physician might administer at a critical moment with assurance that it would not fail him. In all the years that have since elapsed we have never once lost sight of that ideal. Diphtheria antitoxin that is carefully, scientifically, conscientiously made demands a large expenditure of time and money. The cost is amply justified. The value of a human life cannot be measured in dollars and cents. We produce the best possible antitoxin, and we spare no expense in doing it."

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THERAPEUTIC NOTES

DR. WEIRICK'S SANITARIUM,

Rockford Illinois, formerly Dr. Broughton's Sanitarium —established 1901—for the treatment of opium, morphine and other drug addictions, including alcohol and special nervous cases, is one of the best managed institutions in the middle west.

The demand for reputable institutions of this class has increased, and our endorsement of this institution should be sufficient recommendation to physicians who have cases of this kind needing sanitarium treatment. Patients receive good care, humane treatment and enjoy the comforts of a good home.

The European war, which has so profoundly affected our industries, has had a considerable influence in increasing the patronage of American health resorts. Many Americans who usually go to foreign spas, have visited home institutions instead. Furthermore, numerous residents of other neutral countries have come to the United States in search of health, who would in other conditions have gone to Carlsbad, Hamburg or the hundred other health headquarters of Europe. This is particularly true of wealthy residents of Central and South America. In the last year the Battle Creek Sanitarium has had about 200 patients from abroad. The number will probably increase, for in the last three months the institution has had letters of inquiry from prospective visitors residing in the following lands: Cuba, Caiman Islands, Mexico, San Salvador, British Guiana, Venezuela, Colombia, the Argentine, Uruguay, Peru, Honduras, Italy, Switzerland, Russia, England, Germany, India, Japan, the Belgian Congo and Australia.

Since acidosis is now known to be much more frequent than it was formerly thought to be, and also because it is an important factor in diseased conditions, the **Battle Creek Sanitarium** now includes the test for it in the general examination of all patients who enter the institution. Fortunately the evil can best be corrected by a proper diet. The direct test of the blood is objectionable on account of the amount of blood required, while urinary analysis is not sufficiently certain. The most practical means is the analysis of expired air, because there is a known relation between acidosis and the CO_2 contents of expired air, this being diminished when acidosis is present. A method has been devised at the institution for collecting expired air which is simpler than any in use hitherto and furthermore can be employed under all circumstances. The cooperation of the patient is not necessary, so that even in cases of unconsciousness there is no hindrance.

NEW HEAD FOR FRANK S. BETZ COMPANY.

MR. LOUIS R. CURTIS, FORMERLY OF ST. LUKE'S HOSPITAL, CHICAGO, ELECTED PRESIDENT OF WELL KNOWN SURGICAL INSTRUMENT HOUSE.

Considerable interest has been aroused in medical circles by the announcement of the election of Mr. Louis R. Curtis, for 18 years Superintendent and Secretary of St. Luke's Hospital, Chicago, as president of that institution.

It is stated that Mr. Frank S. Betz, the retiring president, continues with the Company as Chairman of the Board of Directors.

Mr. Curtis was born in 1865 in Philadelphia. He obtained his college training at Stevens, graduating as Mechanical Engineer. In 1889 he entered the hospital field as Assistant Superintendent of the New York Hospital. During that period he attended medical college, not with the idea of practicing, but to better fit himself for his hospital work. From the New York Hospital, Mr. Curtis went to the General Hospital of Elizabeth, New Jersey, staying there for about one and one-half years. From there he came to St. Luke's Hospital, Chicago, as Superintendent and has been the dominating figure in that Institution, both as Superintendent and Secretary, until recently, and is now Vice-President in charge of the operation of the Institution. During the last years Mr. Curtis has also been prominent as a consulting engineer, especially among hospitals, and has introduced many advanced and successful ideas in hospital construction and organization. His wide experience among hospitals and medical men, coupled with his technical training, makes him peculiarly well fitted for his new position.

Mr. Frank S. Betz, under whose control the concern bearing his name assumed its present proportions, will continue with the Company as Chairman of the Board of Directors, and give the organization the benefits of his long experience and training. His many and diversified interests are given as reasons for his retiring as active head of the Company.

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THERAPEUTIC NOTES

Blood analysis has yielded such important diagnostic results that it is now widely used in the **Battle Creek Sanitarium.** The services of one chemist and his assistant are now exclusively given to this work. About 20 cc. of blood are taken from the arm of the patient, potassium oxalate being added to prevent clotting. Disturbance of the renal functions commonly attends many diseases, and this is revealed in the contents of the blood. Constituents chiefly sought for as being most significant are total non-protein nitrogen, uric acid, urea nitrogen, creatinin and sugar. The findings have been especially valuable in detecting kidney disease. Urinary analysis may reveal only one-half of the incipient cases, while blood analysis makes certain the diagnosis in the other 50 per cent. In diabetes, this new test is particularly important as determining accurately the degree of the disturbance of metabolism, while it also enables the physician to learn exactly the effect of the treatment he is giving. Partial tests, such as finding only the uric acid or total non-protein nitrogen, are not always satisfactory. In addition the urea and creatinin should be determined.

Another test of value is the finding of the reserve alkilinity or acidosis of the blood; as this condition accompanies many kinds of disturbances of metabolism, and in some cases indeed, is the most important to be recognized by the test and looked after by treatment.

THE MAKING OF AMPOULES.

An illuminating article on the manufacture of glaseptic ampoules of sterilized solutions, as conducted in the laboratories of **Parke, Davis & Co.,** appears in a recent issue of Therapeutic Notes. It is noteworthy because of the emphasis placed upon the careful methods which are essential in the production of both solution and container.

"First of all," says the Notes, "the greatest care is taken in the selection of the glass from which the ampoules are made. It is of the first quality, and must be free from alkali in order to obviate any possibility of contamination or chemical action on the solution. This is vital, for it is imperative that the purity and stability of the contents of the ampoule be assured.

"The medicaments used in preparing solutions are treated with the most suitable solvents, e. g., oils, distilled water, or physiologic salt solution—and the solutions are invariably adjusted to a fixed standard of strength; that is, each contains a specific amount of medicament to a given volume, thus insuring accuracy of dose. The solutions are subjected to the process of sterilization, either by heat applied in an autoclave, at intervals, for four or five days, or by passage through a Berkefeld or Pasteur procelain filter. They are then passed into sterilized bottles, and samples are submitted to the biological department for a series of sterility tests that extend over a period of five days.

"The ampoule containers, cleansed and sterilized, are filled with the sterilized and tested solutions by machinery. The next of each ampoule is hermetically sealed in a gas flame, and ampoules and contents are again subjected to the sterilization process, this time by the careful application of heat, care being taken to adjust the temperature of the apparatus to such a degree that the medicament will not suffer injury. The hermetically sealed container effectually protects the solution from bacterial contamination and oxidation, while the actinic effect of light is prevented by enclosure of each ampoule in an impervious cardboard carton."

As indicative of the trend in hypodermatic medication it may be noted that more than sixty sterilized solutions are now supplied by **Parke, Davis & Co.** in Glaseptic ampoules. Convenience, asepsis, stability, accurary of dose—solutions in ampoules appeal to modern practitioners on these grounds.

BOOKS RECEIVED

Constipation, Obstipation and Intestinal Stasis. Second Edition Enlarged. By Samuel Goodwin Gant, M. D., LL. D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Second edition enlarged. Octavo of 584 pages, with 258 illustrations. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $6.00 net; Half Morocco, $7.50 net.

Blood Pressure. From the clinical standpoint. By Francis Ashley Faught, M. D., formerly director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Second edition, thoroughly revised. Octavo of 478 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1916. Price, $3.25 net.

Personal Health. By William Brady, M. D., Elmira, N. Y. 12mo of 407 pages. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $1.50 net.

Pharmacology and Therapeutics. For Students and Practitioners of Medicine. By Horatio C. Wood. Jr., M. D., Professor of Pharmacology and Therapeutics in the University of Pennsylvania; Second Vice-Chairman of the Committee of Revision of the U. S. Pharmacopoeia. Second edition. Philadelphia and London. J. B. Lippincott Co. Price, $4.00.

A Manual of Chemistry. A guide to lectures and laboratory work for beginners in chemistry. A textbook specially adapted for students of medicine, pharmacy, and dentistry. By W. Simon, Ph. D., M. D., late Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; and Daniel Base, Ph. D., Professor of Chemistry in the Maryland College of Pharmacy, Department of the University of Maryland. Eleventh edition, thoroughly revised. Octavo, 648 pages, with 55 illustrations, one colored spectra plate, and 6 colored plates, representing 48 chemical reactions. Cloth, $3.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

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F. C. STUDLEY, M. D., East Milwaukee, Wis.

THERAPEUTIC NOTES

Blood analysis has yielded such important diagnostic results that it is now widely used in the **Battle Creek Sanitarium.** The services of one chemist and his assistant are now exclusively given to this work. About 20 c.c. of blood are taken from the arm of the patient, potassium oxalate being added to prevent clotting. Disturbance of the renal functions commonly attends many diseases, and this is revealed in the contents of the blood. Constituents chiefly sought for as being most significant are total non-protein nitrogen, uric acid, urea nitrogen, creatinin and sugar. The findings have been especially valuable in detecting kidney disease. Urinary analysis may reveal only one-half of the incipient cases, while blood analysis makes certain the diagnosis in the other 50 per cent. In diabetes, this new test is particularly important as determining accurately the degree of the disturbance of metabolism, while it also enables the physician to learn exactly the effect of the treatment he is giving. Partial tests, such as finding only the uric acid or total non-protein nitrogen, are not always satisfactory. In addition the urea and creatinin should be determined.

Another test of value is the finding of the reserve alkilinity or acidosis of the blood; as this condition accompanies many kinds of disturbances of metabolism, and in some cases indeed, is the most important to be recognized by the test and looked after by treatment.

THE MAKING OF AMPOULES.

An illuminating article on the manufacture of glaseptic ampoules of sterilized solutions, as conducted in the laboratories of **Parke, Davis & Co.,** appears in a recent issue of Therapeutic Notes. It is noteworthy because of the emphasis placed upon the careful methods which are essential in the production of both solution and container.

"First of all," says the Notes, "the greatest care is taken in the selection of the glass from which the ampoules are made. It is of the first quality, and must be free from alkali in order to obviate any possibility of contamination or chemical action on the solution. This is vital, for it is imperative that the purity and stability of the contents of the ampoule be assured.

"The medicaments used in preparing solutions are treated with the most suitable solvents, e. g., oils, distilled water, or physiologic salt solution—and the solutions are invariably adjusted to a fixed standard of strength; that is, each contains a specific amount of medicament to a given volume, thus insuring accuracy of dose. The solutions are subjected to the process of sterilization, either by heat applied in an autoclave, at intervals, for four or five days, or by passage through a Berkefeld or Pasteur porcelain filter. They are then passed into sterilized bottles, and samples are submitted to the biological department for a series of sterility tests that extend over a period of five days.

"The ampoule containers, cleansed and sterilized, are filled with the sterilized and tested solutions by machinery. The next of each ampoule is hermetically sealed in a gas flame, and ampoules and contests are again subjected to the sterilization process, this time by the careful application of heat, care being taken to adjust the temperature of the apparatus to such a degree that the medicament will not suffer injury. The hermetically sealed containers effectually protects the solution from bacterial contamination and oxidation, while the actinic effect of light is prevented by enclosure of each ampoule in an impervious cardboard carton."

As indicative of the trend in hypodermatic medication it may be noted that more than sixty sterilized solutions are now supplied by **Parke, Davis & Co.** in Glaseptic ampoules. Convenience, asepsis, stability, accuracy of dose — solutions in ampoules appeal to modern practitioners on these grounds.

BOOKS RECEIVED

Care of Patients. Care of patient undergoing Gynecologic and Abdominal Procedures, before, during, and after operation by E. E. Montgomery, M. D., Professor of Gynecology in Jefferson Medical College, Philadelphia. 12mo of 149 pages with 61 illustrations. Philadelphia and London; W. B. Saunders Co., 1916. Cloth, $1.25 net.

The Prevention of Disease. A popular book on keeping well by Kenelm Winslow, B. A. S., M. D., formerly assistant Professor of Comparative Therapeutics at Harvard Medical School. 12mo of 348 pages. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $1.75 net.

Physical Examination and Diagnostic Anatomy. 2nd edition thoroughly revised, by Charles B. Slade, M. D., Chief of Clinics, General Medicine and Instructor in Physical Diagnosis, University and Bellevue Hospital Medical College, New York. Second edition thoroughly revised. 12mo of 150 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $1.25 net.

A Manual of Nervous Diseases. By Irving J. Spear, M. D., Professor of Neurology at the University of Maryland, Baltimore. 12mo of 660 pages with 169 illustrations. Philadelphia and London. W. B. Saunders Company, 1916. Cloth, $2.75 net.

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THERAPEUTIC NOTES

A WIDELY USED SOAP.

Most medical practitioners are doubtless familiar in a general way with the properties and purposes of **Germicidal Soap** (McClintock's formula)—a product which has been marketed for many years by Parke, Davis & Co., and which appears to acquire a constantly widening sphere of usefulness as time passes.

In obstetrics and gynecology **Germicidal Soap** is a valuable antiseptic, deodorant and lubricant for the examining finger or instruments.

In surgery it is an admirable general disinfectant. It can be used to prepare antiseptic solutions without the necessity of measuring or weighing, and without waste. For sterilizing hands, instruments and site of operation it is unsurpassed. The germicide contained in it is more powerful than mercuric chloride or phenol, and it does not coagulate albumin.

In office practice **Germicidal Soap** is efficacious in the treatment of parasitic diseases and as a disinfectant for the hands after examination.

Other ways in which the soap may be advantageously employed are these: to cleanse wounds, ulcers, etc.; to lubricate sounds and specula; to disinfect surface lesions; to control itching in skin affections; to make solutions for the vaginal douche; to destroy the odor of hyperidrosis; to cleanse the hair and scalp and to remove and prevent dandruff; to disinfect vessels, utensils, etc.; to wash and sterilize bed-linen, handkerchiefs and other appurtenances of the sick-room.

From the foregoing it will be seen that **Germicidal Soap,** P. D. & Co., is more than a soap—more than a germicide. It is, in fact, an antiseptic, disinfectant, deodorant, sterilizer, lubricant and detergent—all in one. It has been called "the soap of a hundred uses." The designation is not inapt.

The increasing use of laboratory tests in modern medicine, as well as constantly growing patronage, has made necessary a considerable addition to the laboratory facilities of the **Battle Creek Sanitarium.** In the urinary, fecal, chemical, bacteriological and pathological departments, about thirty persons are employed, a number of them being physicians and college graduates. In addition to the analyses, examinations, etc., in connection with the regular work of the institution, a certain amount of original research work is always carried on. At present, investigations are under way to find what carbohydrates will pass farthest through the intestine before undergoing complete digestion. Four cases of fistula near the ileocecal valve have made possible this study. Specimens taken from the fistula are examined and are also compared with those which have passed through the colon. The value of the study lies in the fact that undigested carbohydrates in the intestines lessen or prevent putrefaction. Those which are not absorbed in the earlier stages of the progress toward the colon are therefore of especial value.

It is the policy of the Victor Electric Corporation to stand for the TRUTH at all times, in all of its advertiseing, correspondence and sales work. If at any time your Publisher's Committee, in going over our copy, notice any statement which is at all questionable, we will appreciate your calling our attention to it, when we will either furnish your Committee sufficient proof for its authenticity, or withdraw it.

We have an honest, ethical service to render to your readers, and we ask your earnest co-operation in helping us to present it.

Our products are divided into two classes, namely: X-ray apparatus and Electro-therapeutical equipment. If you were to ask us just how your Journal would be of the *most* help mutually, we would suggest that you encourage your contributors to investigate the various uses of electro-therapeutics (galvanic current, sinusoidal current, high frequency current, light therapy, vibratory massage, passive ergotherapy, etc.) and report their experiences through your Journal.

There is no question in our minds but that the medical profession is only just beginning to realize how useful electricity in medicine really is, so in encouraging the members of your Society to investigate the subject, you are not only helping us as advertisers to "spread the gospel of progressiveness," but also rendering your readers most valuable service—even by making the suggestion to investigate.

BOOKS RECEIVED

Clinical and Laboratory Technic. By H. L. McNeil, A. B., M. D., Adjunct Professor of Medicine and Instructor in Physical Diagnosis, University of Texas Medical School, Galveston, Texas. Illustrated. C. V. Mosby Company, Publishers, St. Louis. 1916.

Practical Uranalyses. By B. G. R. Williams, M. D., Director Wabash Valley Research Laboratory. Author of "Laboratory Methods," etc. Illustrated. C. V. Mosby Company, Publishers, St. Louis. 1916.

Military Surgery. By Dunlap Penhallow, S. B., M. D. (Harv.), Chief Surgeon American Women's War Hospital, Paignton, England; Captain Medical Corps, Massachusetts National Guard; First Lieutenant Medical Reserve Corps, U. S. Army (Inactive List); Director of Unit, American Red Cross European Relief Expedition with introduction by Sir Alfred Keogh, K. C. B., Director- General Army Medical Service. Original drawings by Author. Henry Frowde, Oxford University Press —Hodder & Stoughton, Warwick Square, E. C., London. $1916. Price $5.00.

Report from the Department of Pathology and the Department of Clinical Psychiatry—Central Indiana Hospital for the Insane. 1913-1914 and 1914-1915. Vol. VI. Fort Wayne Printing Company, Contractors for State Printing and Binding. 1916.

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THERAPEUTIC NOTES

AN IMPORTANT HYPNOTIC.

That often intractable symptom of nervous disorder, insomnia, suggests the use of **Chloretone** in preference to hypnotics of the coal-tar series, for the reason that the former is not depressant to the heart and respiration and is not toxic in ordinary therapeutic doses. It produces peaceful slumber closely resembling the natural process, the patient awakening refreshed and rejuvenated. It does not disturb the digestion, produces no objectionable after-effects, and does not cause habit formation.

Administered internally, **Chloretone** passes unchanged into the circulation and is deposited in considerable quantities in the cerebral tissue, the result being that the patient falls into a profound sleep. It appears to be decomposed within the body, for, volatile as it is, we do not find it in the expired air, nor can it be recognized in the urine.

Chloretone is useful in the treatment of the insomnia of acute mania, periodic mania, senile dementia, the motor excitement of general paresis, and alcoholism. It is especially beneficial in controlling sleeplessness due to pain—as in cancer, tabes dorsalis and neuralgias—and to mental strain or worry.

As doubtless most physicians know, **Chloretone** is a product of the laboratories of Parke, Davis & Co. It is supplied in crystal form—in ounce vials and in capsules of three grains and five grains. Because of its camphoraceous flavor it is perhaps best to administer it in capsules.

The laboratory is a hand maiden of modern medicine whose importance grows constantly. Actual tests are such a help in diagnosis, replacing fallible human judgment with the certainty of science, that the increasing use of them is not to be wondered at. The reports of the clinical laboratories of the **Battle Creek Sanitarium** for 1916 show not only the number but the variety of the examinations necessary in a great institution of healing. The total was 62,582. As there were about 7,000 patients in the year, the average per patient was about 9.

Bact. Exam. for Diphtheria	153
Bact. Exam. for Sputum	604
Bact. Exam. of Gastric Fluid	149
Bact. Exam. of Feces	7,168
Bact. Exam. of Urine	380
Bact. Exam. of Blood	37
Bact. Exam. of Pus	121
Bact. Exam. of Milk	54
Bact. Exam. of Water	77
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Exam. of Blood for Widal Reaction	86
Exam. of Blood for Wassermann Reaction	690
Exam. of Diplococci of Neisser	335
Spirochaeta Pallida	4
Autogenous Vaccines	92
Blood Examination for Blood Count and Hemoglobin	11,766
Differential Leucocyte Count	6,660
Chem. & Micro. Exam. of Feces	6,140
Chem. Exam. of Gastric Fluid	1,922
Chem. Exam. of Foods	49
Renal Efficiency	249
Quantitative Uranalysis and Microscopical Exam.	21,281
Pathological Exam. of Tissue	445
Blood Test for Sugar	624
Unclassified Chemical Analysis	75
Non-Protein Nitrogen	471
Uric Acid of Blood	205
Urea of Blood	110
Creatinin	437
Epstein's Test for Blood Sugar	53
Fecal Inspection for Capsular Motility Test	984
Capsule Digestives Motility Test, July to December inclusive	833
	62,582

The nutritive value of whole wheat as a permanent article of diet has long been known and its use has been advocated by physicians for years. One objection of the past has been the unpalatableness of the usual forms and especially has this been true in the feeding of children.

It is interesting to note the change in the attitude of the child since the popular invention of Prof. A. P. Anderson, (Puffed Wheat) has been marketed. No longer does the junior member of our household refuse. Quite the contrary—he demands.

The invention itself is no less interesting. Sealed in guns, the whole grains of wheat are revolved for an hour in 550 degrees of heat. Thus the moisture in each food cell is turned to super-heated steam. When the guns are shot these food cells—over a hundred million per kernel—explode. The whole wheat grain is transformed into thin, airy, flaky bubbles, eight times their normal size.

By this remarkable process, **The Quaker Oats Company,** of Chicago, has received the endorsement of physicians for their product.

The nutritive value of oatmeal, as compared with that of wheat flour, has been firmly established and for thousands of years the oat has been the advocated food.

It contains a higher percentage of albuminoids than any other grain, viz., 12.6—that of wheat flour being 10.8—and less percentage of starch, 58.4, as against 66.3 in wheat. It has rather more sugar, viz., 5.4—wheat flour having 4.2—and nearly three times the amount of fat, 5.6, as against 2.0 in flour. Salts amount to 3.0 per cent in oats, but are only 1.7 in wheat.

The rolled oats marketed by **The Quaker Oats Company,** of Chicago, are worthy of particular note as only selected, plump oats are used, one bushel of grain yielding but ten pounds for the finishing process.

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THERAPEUTIC NOTES

DANGER OF FLY POISONS.

In October, 1914 and February, 1916, we published a cursory statistical report that revealed the number of cases where children had been poisoned from arsenical fly destroyers. We again present a table showing cases reported in the press and collected through the agency of a press clipping bureau this last year.

1916	Total	Fatal	Recov. Doubt.	Recov. Indicat.
March	1	.	1	.
June	1	.	.	1
July	11	5	1	5
August	16	3	1	12
September	3	2	.	1
October	4	2	.	2
	36	12	3	21

The cases occurred in the following states:

California	1	
Illinois	9	3 fatal
Indiana	1	
Iowa	3	
Michigan	1	
Minnesota	5	2 fatal
Montana	1	1 fatal
Missouri	2	1 fatal
N. Dakota	2	2 fatal
Nebraska	3	1 fatal
Pennsylvania	4	1 fatal
So. Dakota	1	
Vermont	1	
Wisconsin	2	1 fatal

It is interesting to note that nine of these cases with three fatalities occurred in Illinois and only one case in Michigan. A bill introduced in the Illinois legislature to prohibit the sale of poisonous fly-papers was *defeated*. A similar bill was *passed* by the Michigan Legislature. Illinois paid as tribute for the neglect of her legislators to safe-guard children, three infant lives and the suffering of six others. This example is a forceful one, in our opinion, and is self pleading for the abolition of this peril.

The United States Public Health Service has taken cognizance of the dangers of poisonous fly papers. The following is extracted from supplement No. 29 of the Public Health Reports:

"Of other fly poisons mention should be made merely for the purpose of condemnation, of those composed of arsenic. Fatal cases of the poisoning of children through the use of such compounds are far too frequent, and owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, it is believed that the cases reported do not by any means comprise the total. Arsenical fly-destroying devices must therefore be rated as extremely dangerous and should never be used, even if other measures are not at hand."

These seems to be no sufficient reason for permitting the unrestricted sale of arsenical fly destroyers and it would be well if other states followed the lead of Michigan in this and regulated their sale. On request we will be pleased to send to anyone interested a copy of the Michigan law.

The profession must need actively to exercise its educational influence to abolish this evil.

BOOKS RECEIVED

THE INTERNAL SECRETIONS, their physiology and application to pathology by E. Grey, M. D., member of the Academy of Medicine of Paris; Professor of Physiology in the College of France, etc., translated from the French and edited by Maurice Fishberg, M. D., clinical professor of Medicine, New York University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases. Paul B. Hoeber, Publisher. 1917. Price, $2.00.

CANCER—ITS CAUSE AND TREATMENT, by L. Duncan Bulkley, A. M., M. D., senior physician to the New York Skin and Cancer Hospital, etc. Volume II. Paul B. Hoeber, publisher. 1917. New York. Price, $1.50.

DIAGNOSIS FROM OCULAR SYMPTOMS. By Matthias Lanckton Foster, M. D., F. A. C. S., Member of the American Ophthalmological Society; Ophthalmic Surgeon to the New Rochelle Hospital; First Lieutenant in the Medical Reserve Corps, U. S. A. Price $6.00. Rebman Company, Publishers, New York.

DISEASES OF THE GENITO-URINARY ORGANS AND THE KIDNEYS. Fourth edition, revised. By Robert H. Greene, M. D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M. D., Professor of Clinical Medicine, University and Bellevue Hospital Medical College. Octavo of 666 pages, 301 illustrations. Cloth $5.50 net. Half Morocco $7.00 net. W. B. Saunders Company, Philadelphia and London. 1917.

MEDICAL STATE BOARD QUESTIONS AND ANSWERS. Fourth edition, thoroughly revised. By R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Assistant Professor of Clinical Medicine Jefferson Medical College. Octavo volume of 724 pages. Cloth $4.25 net. W. B. Saunders Company, Philadelphia and London. 1917.

FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B. A., M. D., LL. D. (Yalen), Professor of Surgery in Cornell University Medical College, New York; consulting surgeon to New York and Bellevue Hospitals; corresponding member of the Société de Chirurgie of Paris. Eighth edition, revised and enlarged, with 475 illustrations and 39 plates in Monotint. Price $6.00. Lea & Febiger Publishers, New York and Philadelphia. 1917.

Next Meeting of the State Medical Society at Madison
October, 4th, 5th and 6th, 1916

THE WISCONSIN MEDICAL JOURNAL

STATE MEDICAL SOCIETY OF WISCONSIN — MEDICINA NUSQUAM NON EST

Owned and Published by the State Medical Society of Wisconsin

L. M. WARFIELD, M. D., Editor
J. P. McMAHON, M. D., Managing Editor

VOLUME XV. NUMBER 2. | MILWAUKEE, WIS., JULY, 1916. | PER YEAR $2.00 SINGLE COPY 25 CENTS

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[Entered as second class matter, June 30th, 1903, at the Post Office at Milwaukee. Wis.. under Act of Congress March 3rd, 1879.]

Waukesha Springs Sanitarium

FOR NERVOUS DISEASES.

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Byron M. Caples, M. D., SUPERINTENDENT — Waukesha, Wisconsin.

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Hay Fever and the Adrenalin Solutions

Adrenalin Chloride Solution and **Adrenalin Inhalant** are powerful astringents. Topically applied in the treatment of hay fever they perform these functions:

Constrict the capillaries;

Allay the congestion of the mucous membrane;

Reduce the swelling of the turbinal tissues;

Control the nasal discharge;

Diminish the violent paroxysms of sneezing and the profuse lacrimation;

Remove the nasal obstruction;

Neutralize the cough, headache and other reflex symptoms;

Permit the resumption of natural breathing;

Induce rest and comfort.

Solution Adrenalin Chloride

Adrenalin Chloride, 1 part; physiological salt solution (with 0.5% Chloretone), 1000 parts.

Dilute with four to five times its volume of physiological salt solution and spray into the nares and pharynx.

Ounce glass-stoppered bottles.

Adrenalin Inhalant

Adrenalin Chloride, 1 part; an aromatized neutral oil base (with 3% Chloretone), 1000 parts.

Dilute with three to four times its volume of olive oil and spray into the nares and pharynx.

Ounce glass-stoppered bottles.

Home Offices and Laboratories,
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Parke, Davis & Co.

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STATE MEDICAL SOCIETY OF WISCONSIN — MEDICINA NUSQUAM NON EST

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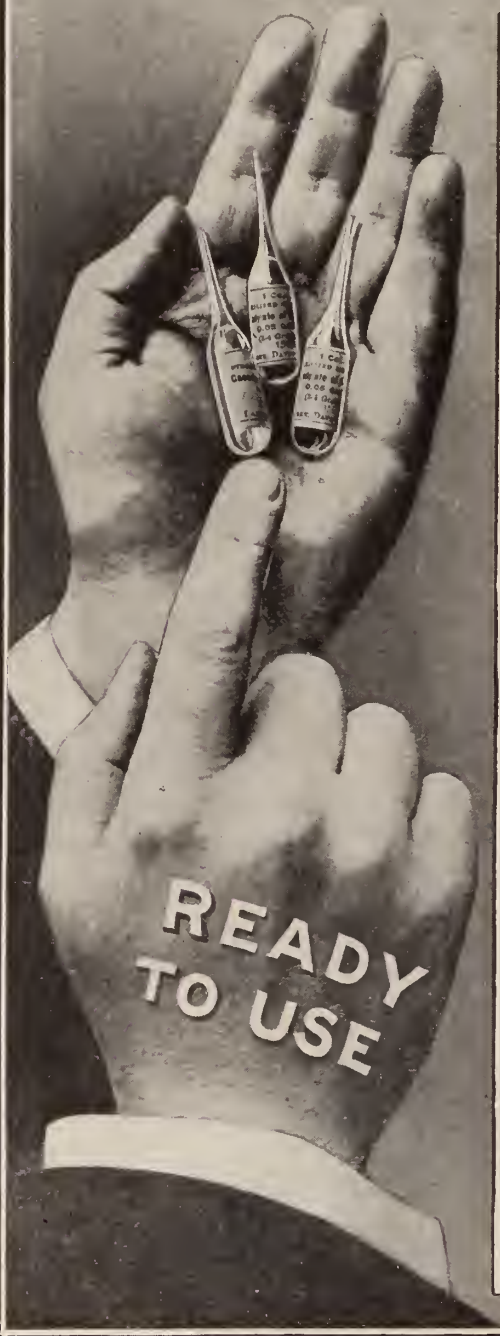

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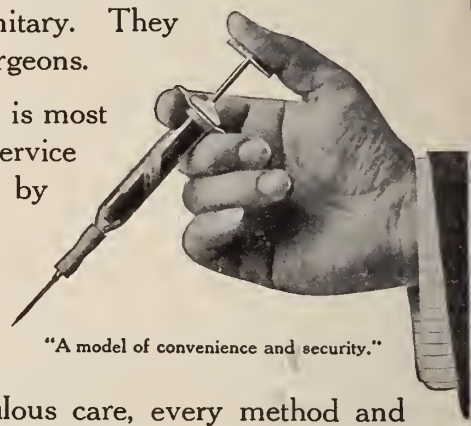

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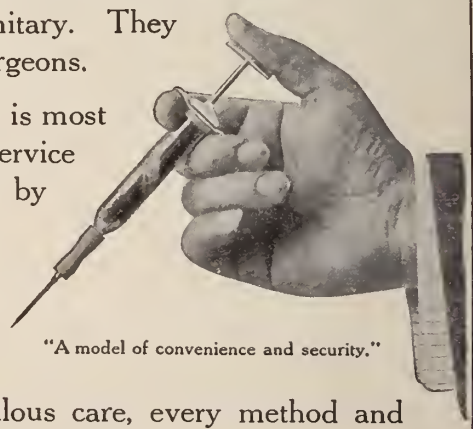

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES.

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Byron M. Caples, M. D., SUPERINTENDENT — Waukesha, Wisconsin.

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ADVANTAGES:

1. It induces profound, refreshing slumber.
2. It is a sedative to the cerebral, gastric and vomiting centers.
3. It is relatively non-toxic.
4. It does not depress the heart or respiratory center.
5. It does not disturb the digestive functions.
6. It produces no depressing after-effects.
7. It is not "habit-forming."

◆ ◆ ◆

As a well-known professor of medicine and therapeutics in a leading eastern medical college said some years ago:

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CHLORETONE CAPSULES: 3-grain, bottles of 100 and 500.
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